

**W2NPT**

The Resonator

Official Newsletter of The Fair Lawn (NJ) Amateur Radio Club**Volume 4, Number 4****www.FairLawnARC.org****April 2019**

From The President:

To FLARC members:

The council has good news for the club. Our new Flex radios have arrived! As planned we ordered (1) FlexRadio 6400 and (1) FlexRadio 6400M. Both come with the additional ATU [Antenna Tuner Unit] option and microphones. <https://www.flexradio.com/flex-6400/>. The plan is to install them possibly as early as the weekend of the 6th. The board/tech committee will be deciding which stations they go on, hooking them up, and configuring them. FlexRadio is planning on coming to FLARC for a presentation in the near future this year.

The entire council is very excited that the membership stepped up and followed through with supporting the club and upgrading our radios! This shows how strong the Fair Lawn Amateur Radio Club member support really is! I would like to close the window to gift funds to the club at the May business meeting on 5/3/2019.

We will likely need a few accessories such as a new laptop or two to fully enjoy the new radios. If you'd like to help the club continue to grow and make the most out of our new radios please consider a monetary gift to the club. DE Brad KM2C

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Member Profile

NAME: **Bob Antoniuk** CALL: **N2SU**

What do you do/what did you do for a living?

I work as a Quality Control Technician for Maquet Cardiovascular in Mahwah. Been in my current position for 27 years with Maquet and our predecessor company, Datascope. On the side I cover high school football for sidelinechatter.com and have been the Public Address Announcer for men's/women's basketball at William Paterson University since 2003. I've worked off-and-on in sports media since my senior year of college in 1978. It's my passion in life, but very difficult to make a decent living at it. My media name is Bob Anthony.

How did you get interested in ham radio?

It goes back to the mid-1960s. My cousin, Ken Antoniuk (former FLARC member) was a shortwave listener. He built a Knight Kit Star Roamer and he'd take it to our grandparents' house in Hunterdon County, string a wire in the trees and we'd stay up late to listen to all the propaganda broadcasts on shortwave. I got interested, and in the summer of 1968 I began DXing the AM band on our then-new Panasonic portable radio. That December, I got a Hallicrafters S-120 for Christmas and had a ball with it over the next few years. As an eighth grader in the Spring of 1971, I was walking through the Clifton library and found a book on amateur radio. I got curious, took it out and began studying for my license. I actually visited FLARC on River Road in May and was offered a code test, but I declined and waited until I was ready. In early June I took the Novice test at Columbus Jr. High in Clifton where a science teacher, Fred Scielzo, WA2FKF (now W2FKF) gave me the test.

Continued on page 4.

The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2018 Officers, Committees and Assignments

President	Brad Kerber	KM2C
Vice President	Lowell Van't Slot	W2DLT
Treasurer	Al Rasmussen	WA2OWL
Secretary	Randy Smith	WU2S

Trustee	Jim Cooper	W2JC
Trustee	Skip Barker	KD2BRV
Trustee	Don Cassarini	N2PRT

Field Day Steve Wraga **WA2BYX**

Member Services Judith Shaw **KC2LTM**

Publicity Ed Efchak **WX2R**

Publicity Gene Ottenheimer **WO2W**

Publicity Susan Frank **W6SKT**

Program Lowell Vant Slot **W2DLT**

Publicity Karl Frank **W2KBF**

Publicity Brad Kerber (*ex officio*) **KM2C**

Social Media Dave Marotti **NK2Q**

Video/YouTube Thom Guida **W2NZ**

VE Liaison Gene Ottenheimer **WO2W**

VE Liaison Pete Senesi **KD2BMX**

Education Gordon Beattie **W2TTT**

Education Randy Smith **WU2S**

Education John L. Howard **KD2NRS**

Education Fred Wawra **W2ABE**

History Fred Belghaus **W2AAB**

Health and Welfare Judith Shaw **KC2LTM**

Photographer Don Cassarini **N2PRT**

W2NPT Trustee Paul Cornett **W2IP**

Technical Paul Cornett **W2IP**

Technical Randy Smith **WU2S**

Technical Fred Wawra **W2ABE**

RACES Director Dave Gotlib **KD2MOB**

RACES Liaison Steve Wraga **WA2BYX**

Newsletter Editor Ed Efchak **WX2R**

FL Town Liaison Gene Ottenheimer **WO2W**

Net Scheduler Brian Cirulnick **KD2KLN**

Quartermaster Brian Cirulnick **KD2KLN**

Fair Lawn RACES/ARES Corner



April is here, and with the warmer temperatures come the addition of Fair Lawn-RACES and Fair Lawn-ARES activities. FL-ARES will be working with Bergen County ARES, Passaic County ARES and other local ARES organizations as part of the NNJ Section of the ARRL Hudson Division. On Saturday, May 4th, ARES will be providing communications for the Lincoln Park Chapel Run. For more information, please contact Gordon Beattie at W2TTT@arrl.net. You may sign up on the ARRL ARES Volunteer Hub at

<https://arrl.volunteerhub.com/lp/nnj>

As you may be aware, the formation of FL-ARES took place on Friday, February 1st. I would like to thank Randy WU2S for organizing FL-ARES. The Constitution, By-Laws and Training Plan were adopted and since then we received our vanity call sign - KB2FLA!! This is happening at a time when the ARES through the ARRL is undergoing a 21st century makeover - the timing can't be any better. Please see the ARRL-ARES article linked below.

New ARES plan aligns ARES with the needs of Served Agencies:

<http://www.arrl.org/news/new-plan-aligns-ares-with-the-needs-of-served-agencies>

Please sign up for various nets and activities taking place at the following website address:

<https://arrl.volunteerhub.com/lp/nnj>

The FL-ARES KB2FLA Net takes place every Wednesday at 7:00 PM on the FLARC Repeater. Please join us every Wednesday for any updates, messages or activities which may take place.

Now, getting back to FL-RACES:

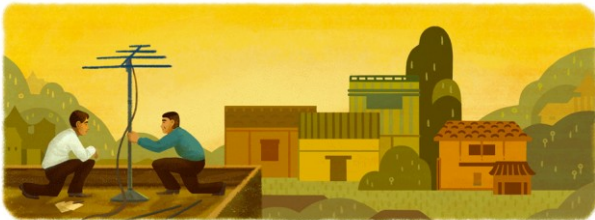
On Wednesday, March 27th, FL-RACES was the Net Control Station for the Bergen County-RACES Net. We operated from the FLARC location at the Community Center. Thank you Ed WX2R for being the scribe during the BC-RACES Net.

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MASTER EVENT CALENDAR

April 13, 2019	ARRL NNJ ARES 5 Watt Challenge (Tentative) from W2NPT clubhouse
April 18, 2019	"World Amateur Radio Day" Clubhouse open from 2PM John Hale KD2LPM and others
April 19, 2019	"The Garden School ARC and Developing Young Hams" (at Sr.Center)
April 29, 2019	"Earth Day At Great Falls National Historical Park" - W2E
May 4, 2019	Garretson House 300th Anniversary Special Event Station - W2G
May 10, 2019 **	Bud Trench AA3B "Using Propagation Tools for Contesting and DXing"
May 11, 2019	Portable Day/Mini Fox Hunt With BARA
June 9, 2019	Fair Lawn Street Fair (Radburn)
June 14, 2019 **	Ron Bosco WB2GAI "DXpedition To Crete"
June 22-23, 2019	Field Day, Memorial Park, Fair Lawn
July 19, 2019	Rich Phoenix "TIS And The Creation Of A Community Radio Station" (Tentative)
August 16, 2019	FLARC Vintage Night II (at FLARC)
September 20, 2019	Tim K3LR "An Inside Look At A Superstation"
October 20, 2019	Fair Lawn Street Fair (River Road)
TBD	"Bring Your Own Boat Anchor" -- An evening of storytelling and demonstrations

**** Second Friday of this month**



Hidetsugu Yagi's 130th Birthday Google Doodle

Follow FLARC ON THE WEB

Facebook: <http://facebook.FairLawnARC.org>

Twitter: @FairLawnARC

Blog: <http://blog.FairLawnARC.org>

Youtube: <http://youtube.FairLawnARC.org>

Website: <http://FairLawnARC.org>

FLARC VEC Exams

Our next test sessions are scheduled for **Saturday, April 13th** beginning at 09:00 at the Community Center. No advanced registration is required but always appreciated. The fee is \$15.00 (cash or check).

Please bring positive identification (license, passport, etc.), your original license and a copy, original CSCE and a copy (if credit is needed).

The full exam schedule is on the club calendar at the FairLawnARC.org website. For further information contact VE-Liason@FairLawnARC.org.

Please refer also to the "License Exams" link on the main website--

<http://testing.FairLawnARC.org>

**We appreciate your support of the Fair Lawn Amateur Radio Club!
This is your Club! Be part of it!**

Member Profile (Continued)

About a month later, the license arrived: WN2BSU. Got on the air with a DX-60B and dipoles and upgraded to General the following April: WA2BSU. My goal was to get to Extra before graduating high school and passed it the day after Christmas 1974 in Miami. When the window for 1x2 calls opened in 1976, I got my current call N2SU in 1977.

What parts of the hobby most interest you?

I've been fortunate to do a lot of things in the hobby. Started as a traffic handler in my teen years, then went inactive from 1982-91, but I made sure to renew my license, because I always knew that I'd get back in the hobby someday. When I returned, traffic handling wasn't the same, so I discovered DX. It started slowly but the country totals kept growing and now I have over 300 countries, all on CW -- barefoot with dipole antennas. That's probably my main activity. Over the years I've done contesting (HF and VHF) and I'd be interested if anyone wanted to do a June VHF contest on a mountaintop. In the last year I've discovered FT8 and have had a ball with it. It's a great way to make contacts and work DX if you have antenna restrictions. Antennas have always fascinated me, because the antenna and receiver are the most important parts of any station.

What does belonging to FLARC mean to you? How do you/can you better contribute to the club?

It's nice to be a part of a club like this with a diverse group of people and interests (emcomm, DX, contesting, etc.). I've sat in on Fred's CW session and am happy to offer guidance where needed. Been a VE since 1992 and hope to help there as my schedule permits. I'm sure I can learn a few things too.

What should be the club's priorities in the next year?

With the addition of Thursday sessions and a great schedule of presentations and a growing membership, just keep it going. If it ain't broke, don't fix it! The most important thing is sustaining this level of activity.

Continued on next page.

Please Note: Operating W2NPT

Starting in January club trustees will have sign-in sheets for all operating positions. There is a clipboard at Operating Position #1, #2 (digital) and #4 with a form on which to sign up for half-hour time slots. No longer first come-first served, in fairness to all who want to use our club equipment and the new antennas. More details to follow.

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

<http://apparel.FairLawnARC.org>
<http://auction.FairLawnARC.org>
<http://blog.FairLawnARC.org>
<http://calendar.FairLawnARC.org>
<http://events.FairLawnARC.org>
<http://exams.FairLawnARC.org>
<http://facebook.FairLawnARC.org>
<http://testing.FairLawnARC.org>
<http://news.FairLawnARC.org>
<http://swap.FairLawnARC.org>
<http://tech.FairLawnARC.org>
<http://youtube.FairLawnARC.org>

NEW !

<https://groups.io/g/FairLawnARC>



March 2019 Blog Traffic

Finally, a recovery in blog visits after a few barren months. Spring perhaps? Here is the data:

	March 2019	March 2018	Change
Views	644	644	NC
Visitors	392	315	+24%
Posts	12	15	-20%

There is new content nearly every day so it's really worth the look to both FairLawnARC.org and the blog.

<http://blog.FairLawnARC.org>

Member Profile, continued

What else can you tell the club about yourself and/or ham radio?

The hobby has had a hand in many of my other interests like geography and linguistics. Although I have worked in broadcasting/announcing for decades, you'll rarely hear me on voice below 30 MHz. CW and digital modes are my main interest.

What other ham related clubs or organizations do you belong to?

ARRL Life Member, QCWA, Radio Club of America, Nutley ARS, North Jersey DX Association, National Radio Club and the International Radio Club of America (the last two are AM broadcast band DX clubs).



Bob N2SU



Club Apparel Is Here!!

Club apparel is always in vogue. Red is always in and your club friends all have them... you *want* a shirt or jacket for the next FLARC event!

Don't forget.... they're easy to order.

Go to www.hamthreads.com or visit <http://apparel.FairLawnARC.org> to check out the item selection that is posted on the FLARC website (with pictures and prices). Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo.

Note:

RED is the primary and preferred club standard shirt color.



Nomar NP4H proudly wears the FLARC colors at the February meeting.

Congratulations!

Pete (KD2BMX) reports the results of the March 9, 2019 FLARC VEC Amateur Radio Exam Sessions:

Total Number of Candidates served: 6

Congrats to 5 passes!!

Name	Call	License Earned
James Barat	KD2RJV	Extra
Kenneth Clink	KD2OKR	General
Jonathan Glatzer	None	Technician
Jakob Friedman	None	Technician
Robert Cavilla	None	Technician

Dues Are Due

We hate to say goodbye but as March ends so does your FLARC membership if you have not sent in your 2019 dues.

Renewals are \$25 and are the best value in amateur radio clubs around. Don't forget to include an application form, which can be found on the website.

<http://membership.FairLawnARC.org>

BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such as gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. **The club is sponsored by the Borough of Fair Lawn.** The club meets every Friday at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM.

Visitors **ARE ALWAYS** welcome at our meetings.

FLARC operates the W2NPT repeater (145.470- PL 167.9) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has over one hundred paid members. Dues are currently \$25 per year/\$20 for new members.

For more information, please see our website, at <http://membership.FairLawnARC.org>

World Amateur Radio Day Is April 18th -- and FLARC Will Be Open!!

Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It was on this day in 1925 that the International Amateur Radio Union (IARU) was formed in Paris.

FLARC will be open from 2 p.m. until close for casual WARD operation and "open house."

The World Radio Network and the World Friendship Net will also be participating in World Amateur Radio Day 2019.

Please join us as we celebrate amateur radio all around the world on 18 April at 16:00 UTC via ECHOLINK on the "World" Conference server (IRLP 9251) and for the first time on Allstar Node #47620 - World Conference Hub.

Interested in Chasing DX?

A casual group of FLARCers including Van W2DLT, John KD2NRS, Brad KM2C, Karl W2KBF, Nomar NP4H, Steve WI2W, Larry WA2ALY, Fred W2AAB, and Jim W2JC have formed an email group to keep each other in touch in (real) time of when the rare or interesting ones show up to chase. Interested? See or contact Van W2DLT or Jim W2JC.



**FAIR LAWN'S
MINISTRY OF TECHNOLOGY!**
With New Antennas On The Roof!



Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	Pete	KB2BMX
February	Marco	KC2ZMA
March	Ron	KC2TBD
April	Kai	K2TRW
May	Larry	WA2ALY
June	Dave	N8MAR
July	Steve	WI2W
August	Thom	W2NZ
September	Brian	KD2KLN
October	Brad	KM2C
November	Al	WA2OWL
December	George	W3EH
January 2017	Fred	W2ABE
February	Dave	KD2MOB
March	Randy	WU2S
April	Lee	KD2DRS
May	Gene	WO2W
June	Carol	KD2NMV
July	Kevin	KC2KCC
August	Robert	KD2NOG
September	Robert	KD2BKD
October	John	KD2NRS
November	Fred	W2AAB
December	Margaret	W2GB
January 2018	Brian	KD2OAZ
February	Bennett	KO2OK
March	Van	W2DLT
April	Aly	ALØY
May	Bruce	NJ2BK
June	Dave	N2AAM
July	Karl and Susan	W2KBF and W6SKT
August	Steve	KA2YRA
September	Paul	K2PJC
October	Skip	KD2BRV
November	Jim	W2JC
December	Tom	N2AAX

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!

Back issues are also available on our website.

<http://newsletters.fairlawnarc.org>

Theoretics Demystified

The spectrum is something we talk about, having to do with radio, but it is something we do not really think about in an overall way. The spectrum starts at one cycle per second, and extends all the way up to gamma rays. The representation of which is usually defined, as a sine wave since that is what we are used to, but even though that is accurate electrically, it is different when sound or free air radio waves are involved. Sound is vibration, an ebb and flow, a back and forth, a compression and decompression of a medium such as air or water that our ears perceive as sound.

The frequencies in the sound range are the same electrically in a wire but it is the instantaneous back and forth of free electrons in a conductive substance such as a copper wire that occurs as opposed to the sound wave pressure changes that we perceive as sound. The difference is that our ears only perceive 'sound' from about 20 to 20,000 cycles, but electrically the frequency of those oscillations are useful from one cycle per second all the way up to and beyond the giga-hertz range into and beyond the micro-wave range. As the frequency, or wave occurrences, increase within the space of time (one second) the wave length becomes correspondingly shorter.

As the wave lengths become shorter you enter into the infra (or near) red range, across the light spectrum and out to the ultra-violet frequency, then into the X and gamma ray spectrum. The lesson we learn from all of this is that electromagnetic energy behaves differently depending upon the frequency of its oscillation (or back and forth action). We are sensitive to the low frequency oscillations we perceive in air or water as sound, and the high frequency energy that our eyes see as light. Outside of those two senses we only can feel an electrical shock or get an electrical burn as in RF, but there is much more going on around us!

We have in the last century developed and discovered ways to sense and use the heretofore unused electromagnetic spectrum. In a wire electrical energy it is one thing but as free waves in air or space it uses quite another. We can control and use what is in a wire easier than what is in free air and that is because radio wave behavior is influenced by the somewhat reflective ionosphere which is constantly changing and greatly influenced by the sun's present characteristics. That is what we know as propagation.

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2019 Near and Far Net Check-In's

Now in its third year, the FLARC *Near and Far* net is chugging along each week. Here is list of our check-ins beginning on New Year's Night in no particular order. Mondays at 8PM on the repeater.

Name	Call
Dave	N2AAM
Gene	WO2W
Van	W2DLT
Karl	W2KBF
Stan	KC2K
Ed	WX2R
Steve	WA2BYX
Brian	KD2KLN
Ken	W2KAC
John	K2BIX
Fred	W2AAB
Bob	KD2BKD
Randy	WU2S
Dave	KD2JIP
Larry	KD2QFI
Steve	WI2W
Brad	KM2C
Thom	WN2Z
Ron	KC2TBD
Jim	W2JC
Dave	KD2MOB
Bob	KM4CPU
Bob	KE0OPX
Phil	KA2SEY
Dave	NK2Q
Noel	N2OEL
Ray	KD2RBW
Larry	KD2QFI
Matt	K2FTP
Paul	K2PJC
Tom	WB2KWD
Brian	KD2OAZ
Bob	N2HIP
Al	KC2SAV
Chris	W2TU
Anton	K2PLB
Ray	KD2RIK
Watson	K3WAT
Kevin	KD2RJM
Roger	K2RRB
Jonathan	KC2RRK
Andrew	KC2G
Kenneth	KC2OKR

2019 Member Profiles

With Volume 4, we begin an new list of featured members in a monthly profile. See past profiles elsewhere in *The Resonator* to check back in the archives to see each featured member's background.

Month	Name	Call Sign
January 2019	Dave	KD2JIP
February	Jim	K2ZO
March	Zach	KC2RSS

Why Did You Join FLARC?

As part of the annual member survey we asked members who have been in the club for three years or less why they joined. Here is what they said:

- They have friendly people
- They have a physical station/multiple stations
- Have good equipment/new antennas
- VE sessions were an introduction to the club and joining it
- Programs were an introduction/regular programs/good speakers
- They have smart/technical members
- Recommendations by others/reputation/"good club"
- It's local
- It's better than other clubs/more happening
- I just wanted to learn about ham radio/get back into ham radio ("help me gain knowledge, make friends, overcome "uncertainty")



A Letter To FLARC

Recently, a mysterious envelope arrived at my home QTH. It bore no return address, and a foreign postmark. The envelope contained the following manuscript, with a note attached claiming that it was written by a former member of FLARC, and one-time academic, now retired, who has held off telling this story for many years. The subject, though controversial, was so interesting that we couldn't stop reading, so we decided to share it with you. The club makes no further claims about it. DE Ed WX2R

My name isn't important. What's important, at least to me, is the story I have to tell. The incidents I am about to describe took place many years ago, during the Cold War era. At the time, I was associated with one of our state's large universities, teaching physics to upperclassmen. The details were provided by a former colleague of mine, a onetime Soviet scientist-turned-defector and former radio amateur, Aleksei Alexandrovich Shutnik, ex-U9AB.

Our story begins in the Autumn of 1956, in the Russian city of Irkutsk in Siberia. Shutnik, a highly regarded electronics engineer and expert on galactic noise sources, also held advanced degrees in physics and mechanical engineering. He was managing director of the "Sovietskaya Antena," a large radio telescope facility several kilometers outside the city. While scanning frequencies in the microwave bands, he observed a peculiar signal on 1420 Megahertz which appeared to follow a regular pattern.

Recordings of this unusual transmission revealed, by computer analysis, a definite logical content, suggesting not merely a language element, but a complex syntax, and one not traceable to any known language. Shutnik reported his findings to the Central Committee for Advanced Scientific Studies in Moscow, requesting further instructions from his superiors there.

Their response was slow in coming. Shutnik waited several months before a reply was received, and when it finally came, it was a terse rejection of his conclusions, with no further explanation or interest expressed in pursuing the matter. Undaunted, Shutnik, who had previously encountered official dismissals of unconventional scientific investigations, remained determined to get to the bottom of this mystery, but on a private, unofficial basis, away from bureaucratic meddling.

Shortly after this incident, Shutnik secretly left the Soviet Union, and after a brief stay in a South American country, applied for entry to the United States as a defector. After an initial, somewhat difficult screening process, his application was approved, and he soon thereafter became a U.S. citizen.

Shutnik, who was fluent in English, was fortunate to have secured a position with my own university as assistant professor of electrical engineering, teaching graduate students interested in deep space radio astronomy. Meanwhile, his determination to solve the mystery of the strange signal he had monitored continued to dog him.

Shutnik bought a small house on farmland in a place called Copleston, in one of the rural counties of Northern New Jersey. You will not find Copleston on a map, because it is an unincorporated village that is part of another town, whose only identifying feature is a now abandoned railroad station on a rail line that no longer exists. At the same time, I was living in a neighboring town which I shall not name.

In his spare time, he constructed a deep space monitoring station on his property, beginning with a large collinear array designed for 1420 Megahertz. He then constructed a highly sensitive, low-noise receiver, and outfitted his home set-up with chart recorders, an array of laboratory test instruments, tape recorders, and a large, home-designed and built, but powerful computer.

Continued on next page ...

A Letter To FLARC, continued

After months of monitoring and computer analyses, Shutnik concluded that some higher intelligence was indeed attempting intergalactic communication with anyone who might be listening and able to respond. He then constructed a high power microwave transmitter with which to attempt a response to these transmissions, many of its parts supplied by the university.

Shutnik tried the usual modulation types, with no observable results. After many trials, he devised a form of inverse double phase modulation (IDPM) that elicited a response, but one that came after several minutes, suggesting that the signal originated many thousands of miles from the earth.

After many additional transmissions, he was finally able to decipher their language, and began to communicate on a regular, scheduled basis. Every Friday evening at 11:00 o'clock, he would turn on the filaments of his transmitter power supply, then, after a suitable pause, throw on the high voltage, delivering more than 10,000 volts to the plates of his bank of high power klystrons. Then, after having composed a message on a device he dubbed the "transcriber," commenced his scheduled transmission. After the necessary waiting time, he received an answer.

What he decoded astonished him. The message read:

The nation of your birth will shortly launch a satellite that will circle your planet and surprise scientists. Thereafter, the nation you have chosen as your new home will be greatly disturbed and become fearful. Do not be alarmed. Your former nation will also send the first human into space, and this will frighten your military more. They will soon respond with even greater wonders, and for many years there will be a rivalry between these great powers. But we fear that one day, your new nation will place atomic weapons in space, thus threatening the peace of all nations on your planet and even ours. You must do what you can to prevent this from happening. We will assist you. More to follow, later. Please continue our schedule for further instructions.

Shutnik turned off the transmitter, then the receiver, and sank into an armchair, in a state of complete shock. He was convinced that he had an obligation to warn his colleagues as well as the U.S. Government, but he was also afraid that no one would believe him.

One of the questions that remained unanswered was where, exactly, these messages came from, and who his anonymous correspondents were. His antenna array was not steerable, so he could not pinpoint the origin of the signal with greater accuracy. Previous requests for this data were either ignored, or the replies he received were not understood after decoding. How, then, could he convince his colleagues and government officials to take seriously the whole affair? What also bothered him was that, being a recent defector, the authorities might suspect him of some nefarious intent.

Meanwhile, Shutnik was informed by his department head at the university that there were reports being circulated that he had been spending too much time at home on his private project, and not enough time in his classroom. Disturbed by this, Shutnik was sorely tempted to explain the reason, but he finally decided that to do so might well jeopardize his position at the university, since he had no unimpeachable evidence to present to his department head or other university officials.

Continued on next page ...

A Letter To FLARC

Instead, Shutnik took a leave of absence “for health reasons” and returned to his private investigations, in hopes of obtaining enough hard data to present. Night after night, he studied the recorded messages he had received, searching desperately for a clue that would pinpoint the origin of the signals, to no avail.

One night, after receiving a puzzling message, Shutnik again sat motionless in his chair. This latest message read as follows:

We have not received a favorable response from you regarding our prior request. Unless we receive a definite statement of compliance, we will terminate all further communication by these means. We await your reply on our next scheduled communication.

What could he say to his unknown correspondents? His perfectly understandable fears tormented him for days. Furthermore, he wondered what, precisely, the message meant by terminating “all further communication *by these means.*”

The following week, Shutnik did not respond to their latest request. He was consumed by anxiety as he listened, and then decoded their message.

Respond please. Respond within one hour of your planetary time, or we will be forced to take further action.

Trembling with fear, Shutnik left his laboratory and walked outside. It was a clear night, and he looked up at the stars, wondering, in the way he did as a boy, what mysteries lay behind their inscrutable silence. He walked the full circuit of his property, turning over the entire incident in his mind, especially the content of the latest message.

Turning back towards his home laboratory, his attention was drawn to an abnormally bright star directly above him. It grew larger, its light becoming brighter and brighter, until it covered a large area around him. When it seemed to be no more than one hundred feet above him, he discerned that the light that he thought was a star, actually came from a large, triangular shaped craft, with red and green lights running along the bottom side. Its “engine” was completely silent.

Suddenly, the light focused directly on him. Completely awestruck, Shutnik collapsed, falling to the ground with a thud. He lay there for an indeterminate period of time before slowly regaining consciousness. When he did, the last thing he remembered seeing was this unidentified craft shooting upwards at high speed and disappearing behind the moon.

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Continued on next page ...

A Letter To FLARC

That's how I found him, lying there in his lab smock, in a state of severe agitation, but unable to speak. He did not speak for more than three hours, the first time I learned of his strange adventure. After telling his story in detail, I remained silent. Then, he spoke again.

"Why did you happen to be there?" Shutnik asked.

"I had the occasion to drive out this way several weeks ago," I said, "And once I saw that huge collinear array, I concluded that you were doing some independent work. I know the university has no such facility, and the budget precludes any additional expense."

"I'm grateful that you were here tonight, but why tonight?"

"I've been here for the past week, every night, expecting something to happen, I don't know what, exactly. Call it a 'premonition,' if you like. You see, I monitor the microwave bands at my ham station. One night, I heard an uncommonly strong signal on 1420 Megahertz, a signal that could only be local. So I built a small parabolic dish, using an old hubcap as the reflector. I mounted a dipole in the center, and used some low loss coax to connect to the receiver. Then, I built a DC power supply for my microwave receiver, so I could 'go mobile,' and locate the signal. When I was a half mile away, I pointed the little dish in your direction, and it blocked the receiver. Even with the antenna disconnected, you were peaking more than 100 microvolts on the meter. I knew it was you transmitting, and using very high power. I suspected you were up to something, but I didn't know what, exactly. I thought I'd better find out."

"I was not 'up to something,' as you put it, but attempting to communicate with advanced life forms on the well-known hydrogen spectrum line frequency. I did, in fact, communicate with them, whoever they are."

"But don't you know that the 1420 Megahertz frequency is, by international agreement, to be kept free of any terrestrial signals? It is forbidden to transmit there."

Shutnik's face turned ashen.

"But—I really *did* communicate with *someone* there, legal or not. I did it in the interests of science, which sometimes must take precedence over laws and regulations made by politicians and bureaucrats."

"Well, don't worry. I won't tell the F.C.C. or anyone, for that matter. By the way, did you know that your mother country launched a satellite yesterday called *Sputnik*?"

"No, I hadn't heard. But whoever I communicated with told me that they would, some months ago."

"Really?"

"Yes, and they said more. They said that Russia would also be the first country to put a man in space, among other things."

Continued on next page ...

A Letter To FLARC

I smiled. "Oh, come on, Alexei. You're the exception. Most of those Soviet guys are just incapable of anything like that. You've got to admit, they're pretty backward, compared with us. They'll never send a human being into space."

Shutnik was obviously hurt by my tactless remarks, but he remained calm and lucid.

"Yes, I suppose that's true. They're so backward they could never actually communicate with extraterrestrial life, either. After all, they're not 'superior' *Western* scientists."

His sarcasm wiped the grin from my face.

"I'm sorry, Alexei, really. That was nasty of me, and uncalled for. Come on, let me buy you a drink at Joe's in town. How would you like a nice shot or two of your favorite national beverage?"

"No thank you," Shutnik said. "I've got more important things to do."

"What might that be, if I may be so inquisitive?"

"I'm going to build a spacecraft. One just like the one I saw tonight. When I awakened from my faint, I saw very clearly in my mind, the details of its amazing propulsion and navigational systems. It was as if I had been given a profound 'gift,' implanted in my brain by telepathy or some other means. I could not speak because the experience was so overwhelmingly rich and bizarre. If they ever come back, I'm going to follow them, and find out where they come from."

"Good night, Alexei," I said, "And good luck." I was convinced that he was out of his mind.

I left Shutnik standing there, that clear, crisp October night, many years ago, never believing a word he said. Not long after this, he resigned his position at the university. I couldn't help but wonder, though, whether he was really going to follow through with his plan.

I drove out to his place several times, and watched from a safe distance away through binoculars, as the spacecraft took shape. It was triangular, with a raised portion at the top, but without windows. I wondered how he would be able to navigate such a craft. Then, one night some weeks later, I went back to see how he was progressing, feeling sorry for him now. I thought it was terribly sad that such a brilliant scientist could be driven out of his senses by such a foolish obsession. I also felt that I had a moral obligation to look out for my former colleague in the event that he suffered an injury.

His house was dark, and there were no signs of life there. Newspapers were piled up on the front porch, and the mailbox overflowed with envelopes. His car, missing its tires, was placed up on cinderblocks. I went around to the backyard. The large antenna was still there, but I was drawn to a strange sight before me, some distance away from the house.

There, in the middle of the large, uncultivated field, was no sign of his spacecraft, where I had seen it in previous weeks. In its place there was only a circular area about ten feet in diameter, where the ground was covered with the deposit of a white, powdery substance. I should have taken samples of this substance, but I didn't. It smelled somewhat like oxidized aluminum.

Continued on next page ...

A Letter To FLARC

Really worried about him now, I called the police. They asked me to accompany them, should they need someone to identify Shutnik's body. No answer was received at the front door, so they broke down the door in back of the house. Using flashlights, we searched from cellar to attic, but found no trace of him.

His equipment was still there in his laboratory, but two things were missing. One was his notebook containing the results of his experiments. The other was the transcripts of all his supposed communications.

Shutnik was never seen again. There were rumors that he had returned to the Soviet Union, possibly bearing stolen American technology. After seven years, he was presumed dead, and after a lengthy legal proceeding, his property was purchased by the university. Subsequently, they built a deep space laboratory, using much of Shutnik's equipment, but without, alas, his valuable, if controversial notes and transcripts.

Since that last visit to his home so long ago, I have thought of him often. Not long after his disappearance, I hired private detectives to search for him. They came up with nothing. In recent years, I have made many searches online, in hopes of turning up some clue as to his whereabouts, always with no results. It's as if he has literally fallen off the earth. If he is still alive somewhere, he would be in his mid to late 80's.

I remembered his predictions that Russia would send the first satellite into space, and later, the first human being. I wondered how he could have known, well before these events happened. Then there was that prediction of possibly putting nuclear weapons in space. In the light of recent proposals by the U.S. to establish a "space force" under military control, my curiosity turned to deep concern. That's why I'm writing this after all these years.

Was he telling the truth about his mysterious communications? I used to think he was crazy, but now, I'm not so sure. Where he is, and how he got there, is probably known only by Shutnik and his mysterious correspondents on 1420 Megahertz.

-###-

N2AXX Gains Instant UK Ham Notoriety!

Our own Tom N2AXX on a visit to the UK stopped in and got the chance to meet THE Martin Lynch, G4HKS on March 11, 2019. Martin Lynch is the UK's largest ham retailer and Tom noted that the ad below will run in an upcoming issue of *RADCOM*, the UK version of *QST*. Kudos, Tom! FLARCers are noted everywhere!!



Here at the World's Favourite Ham Store, we get customers pop in from all over the world. Tom N2AXX has just dropped by from New Jersey!

He told Martin he'd visited Ham Shops worldwide and the only other store that comes close to ML&S was in Tokyo. Enough said! Cheers Tom and see you next time you fly into Heathrow.



Watertight Enclosures

Every now and then I run into an attempt to make a “water-tight” enclosure. There are almost no water-tight enclosures.

Even a \$13,000 Rolex Submariner wristwatch has its limits. These come with a gasketed screw-on crown and they are water-tight to a depth of 1,000 feet – this is Rolex’s “dive watch.” The screw-on back also has a gasket. The warrantee is 5 years. Rolex warns that by 10 years the gaskets could be shot and the watch should be serviced (\$500 or more!). Left unserviced, by 15 years your 1,000 ft certified dive watch might fill with water while swimming.

The Rolex Submariner is about as good a water tight enclosure as we know how to make and is priced accordingly. What about ham gear?

Two short stories:

I was gifted a commercially built trap dipole some years ago – the trap on each side of the center insulator allowed for operation on 30 and 40 meters. When I received it, the antenna had been in the air for a year or two and then stored indoors for a year or two. I put it up and it didn’t work. I will make this brief: I wound up pouring water out of the “sealed” traps. The traps were made of PVC pipe with PVC end caps cemented on. A stainless steel screw exited through the middle of each end cap and the screws appeared well sealed and not the least bit corroded. Why were the traps half filled with water? During year(s) of storage, why hadn’t the water left the way it got in?

I worked in a large aerospace company for years and had access to labs filled with state-of-the-art test equipment – a fun job. Every circuit board we shipped received “conformal coating” – sprayed on to prevent humidity from affecting the circuits. Conformal coating was tough stuff and nearly impossible to remove once applied. It sure looked like the circuits were sealed under all that goop. But they weren’t, at least not completely. Based on a suspicion, we ran an experiment designed to check just how good the coating was. We took a humidity probe, put it in a humidity chamber set to zero humidity and conformal coated it. The meter on the far end of the probe read zero humidity – all good so far. We then reset the chamber to 50% humidity and watched and waited. After a day the meter read 50%. The humidity had made its way through the conformal coating in 24 hours and this was a very benign test – no temperature cycling, no wind-blown rain, no ice, etc. The conformal coating we were using was Rolex-like quality, MIL-STD. It was the best money could buy.

So, what hope do we have as hams to have a fully sealed outdoor enclosure, whether it be home-brew or commercial? “Outdoor” includes temperature cycling, wind-blown rain, ice, etc. The answer is: there is little to no hope of sealing an outdoor enclosure.

There are two main culprits for water showing up inside enclosures – leaks and the condensation of humidity.

Continued on next page ...

Around The Shack

Leaks come about a variety of ways. Wires have to get in and out of our outdoor enclosures and the holes for those often leak despite our best efforts. Also, water will wick up stranded wire due to capillary action. Connections made by bolting SO-239s to the walls of enclosures might look water tight – but it turns out SO-239s are not water tight – water will pass through them. Through-bolting through the wall of what are sold as “NEMA” or PVC enclosures will compress the plastic – which relaxes over time and creates a path for leaks.

Even enclosures that don’t leak tend to breathe. Humid air winds up inside the enclosure where it condenses to a liquid as the temperature drops. Temperature cycling can build up an amazing amount of water inside what we think is a sealed box. I have opened some of my “sealed” NEMA boxes at N4GG and discovered the inside to be perfectly dry and all the parts inside hopelessly corroded. Water can move back and forth from the vapor phase to the liquid phase with ease – and it does.

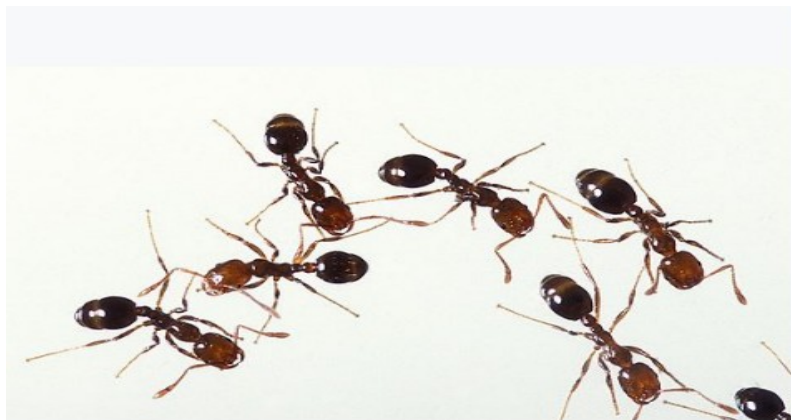
(One caveat at this point: There *are* successfully sealed units and we see them sometime in ham radio. Vacuum tubes are in this category – the glass-to-metal seals where the connections exit a vacuum tube will last indefinitely. Potting is another method to “seal” things.)

So, what to do? Give up on “sealed” and leave enclosures open. Notice the breaker box and the cable box on the side of your house? They keep the rain out and that’s it. Some tips:

- If you are using a NEMA box leave drain holes in the bottom.
(Remember the older trap tri-banders with holes in every trap? The holes go down not up!)
- Electrical boxes (typically steel and at every home goods store), cable TV boxes and telephone service boxes are all good for ham purposes. These are commercial-grade products and the professionals make no attempt to “seal” outdoors.
- Outdoor boxes should always have all leads exiting through the bottom along with all connectors at the bottom.
- A temporary (or maybe permanent?) solution is an upside down bucket or plastic box placed over whatever needs protection. At N4GG there is now a Rubbermaid storage box bottom turned upside down over my antenna relays. It was spray painted black to help with UV protection and to blend in. It’s been there for years. It’s completely open at the bottom and working fine.

A sad postscript to mention: At N4GG the other day a relay in an outdoor NEMA box - with a drain hole – quit working. Opening the box revealed an ant colony. It’s always something!

73,
Hal, N4GG/4



N4GG/4 Is A Feature Story In April QST

FLARC alum and monthly contributor Hal Kennedy N4GG was the author of a story this month in *QST* on operating in state QSO parties. Hal was an (almost) original member of FLARC (when he was WA2QPW) and remains a good buddy of W2DLT and W2JC (who was W2BVE back then).



Hal N4GG/4

Additional FLARC Station Openers Announced

In order to increase the number of days the club can be opened, the following members have been either volunteered or appointed to open the station. The schedule make take a bit to fall into place but here are the those besides Council members or trustees:

CallCa	Name
NK2Q	Dave
W2NZ	Thom
W2KBF	Karl
KD2MOB	Dave
NP4H	Nomar
W3EH	George
W2AAB	Fred
WX2R	Ed
KD2KLN	Brian

FLARC And Related Callsigns

Club call	W2NPT
RACES	KB2FLR
ARES	KB2FLA

Volunteer Help Needed For An Upcoming Charity Run

Some of you may or may not be familiar with the Chapel 5K run in Lincoln Park. They had a communications team that unfortunately fell apart and no one runs it anymore. This is where I come in.

I am now the communications coordinator for the 2019 5K run and I need your help. I am looking for volunteers for the event on May 4th (Saturday).

Duties include directing traffic into parking lots, check point posts, and a water station post at the end of the race. Since I am new this year and am starting with practically nothing I am afraid I don't really have more details. Ideally I would like 24 people total for the event but I can run things smoothly with 16 people. We are there to make sure the race goes as planned and to provide communications in coordination with Lincoln Park Police and Lincoln Park EMS. We are their eyes and ears because they can't be everywhere at once.

The frequencies for the event aren't written in stone but they are likely going to be DMR simplex. If you do not own a DMR radio please let me know in the email so I can accommodate you. Please don't tell me the day of the event!

If you would like to volunteer that day please contact Dave K2NEC (k2nec.moto@gmail.com).

If you would like to volunteer but are not sure if you can make it please note that in the email. I would rather have you tell me that you aren't coming and have you show up, than assign you to a post and have you not show up.

Thank you all for your help!

Best regards,

K2NEC (Formerly KD2LQG)
Dave

<https://www.thechapel.org/event/950419-2019-05-04-chapel-5k/>

<https://vimeo.com/268173389>

Nobel Laureate Joe Taylor K1JT Addresses FLARC On The Future Of Digital -- "Beyond FT8"

FLARC was honored on March 15th by Joe Taylor's presentation to a standing room only crowd of just short of 100 members and guests. Joe reviewed the development and success of digital amateur radio, the recent introduction and spread of FT8 and an exclusive look at what comes next for which you HAD to be in attendance to learn more about -- at least for now. Taylor had the opportunity to meet club members and answered questions before, during, and after the presentation. Our thanks to him for a unique evening!



Joe Taylor K1JT on March 15, 2019 at the Senior Center



Taylor makes a point to the overflow crowd



Mike KC2ZX gets to ask a question



Taylor with the FLARC Council prior to the presentation



93 "officially" with a few additional by unofficial counts

Tnx N2PRT for the pix



Digital will continue to evolve with improved formats coming noted Taylor

Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	Pete	KB2BMX
February	Marco	KC2ZMA
March	Ron	KC2TBD
April	Kai	K2TRW
May	Larry	WA2ALY
June	Dave	N8MAR
July	Steve	W12W
August	Thom	W2NZ
September	Brian	KD2KLN
October	Brad	KM2C
November	Al	WA2OWL
December	George	W3EH
January 2017	Fred	W2ABE
February	Dave	KD2MOB
March	Randy	WU2S
April	Lee	KD2DRS
May	Gene	WO2W
June	Carol	KD2NMV
July	Kevin	KC2KCC
August	Robert	KD2NOG
September	Robert	KD2BKD
October	John	KD2NRS
November	Fred	W2AAB
December	Margaret	W2GB
January 2018	Brian	KD2OAZ
February	Bennett	KO2OK
March	Van	W2DLT
April	Aly	ALØY
May	Bruce	NJ2BK
June	Dave	N2AAM
July	Karl and Susan	W2KBF and W2SKT
August	Steve	KA2YRA
September	Paul	K2PJC
October	Skip	KD2BRV
November	Jim	W2JC
December	Tom	N2AAX

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!

Back issues are also available on our website.
<http://newsletters.fairlawnarc.org>

April 2019 Near and Far Net Controls

Here is the roster for net controls for the upcoming month as reported by Brian KD2KLN:

Date	Net Control
April 1	W2KBF
April 8	KD2MOB
April 15	KD2KLN
April 22	WX2R
April 29	KD2MOB

The Near and Far Net now averages close to 20 check-ins on an average week! Cool beans.

But we need more volunteers to be net controls -- if everyone takes their turn it's less burden on the others. And it's easy. Volunteer --- don't wait to be asked (unless you really want to be flattered).

Have You Updated Your Listing In QRZ?

Anyone who operates should take advantage of the free listing at QRZ.com to tell the world a little bit about you.

And while you're at it, it's a good chance to tell everyone that you're a proud member of FLARC and (affectionately) what it means to you. Wear your red FLARC shirt in the picture.

It is also a very handy and easy place to keep your log (DX or regular), which can then easily be linked to LotW.

Details for setup are at <http://www.qrz.com>

Capital Equipment Fund Nears \$3,000!

Treasurer Al WA2OWL reports that as of April 5 the capital equipment fund totaled **\$2,981** from 39 members. The average gift so far is \$76.43.

Any gift, large or small, matters to upgrade FLARC and make it state of the art. Thanks.



Still Time To Donate!!

STARTING 2019

Fair Lawn Amateur Radio Club is looking for monetary gifts to the club to purchase new HF Transceiver(s)

FLARC will be accepting monetary gifts throughout 2019



- Our goal is to support purchasing at least one new HF radio by June to have it for 2019 ARRL Field Day
- The club will match monetary gifts 1:1 up to \$2500. If the club receives \$2,500 it will match that with another \$2,500 for a total budget of \$5,000 in this example
- This year more than half of the member surveys indicated that they would be interested in a monetary gift to the club
- Our current radios are aging, are no longer produced, and will not last forever
- This purchase is part of the 2 year improvement to the club's operating stations and capabilities

Contact the Treasurer to submit your gift:

treasurer@fairlawnarc.org

The new radio(s) will:

- Bring Software Defined Radio to the club to reach education goals on the topic of SDR
- Allow FLARC to operate Field Day Class 4A and without having to borrow radios
- Permit FLARC to be more competitive in contests and events
- Reduce station setup complexity when configured for digital mode operation
- Support software updates that allow the radio to be future-proof
- Enable remote access to the club's radio(s)
- Will give you access to a SDR Radio at a fraction of the cost of purchasing it yourself
- Continue to recognize FLARC as New Jersey's premier Ham Radio club

Save The Date: April 19, 2019

The Garden School --Bringing Amateur Radio To Today's Youth

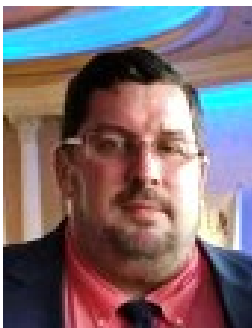
Bringing youth to amateur radio is a holy grail for many hams. But a small school in Queens has accomplished just that and with award-winning results. John Hale, KD2LPM will lead a panel discussion on the development and growth of a club which has been nationally recognized for its achievement. The Garden School launched the club in 2016 after it received equipment from a donation to the [New York Hall of Science](#) (NYSCI). NYSCI continues to be a big help to the club, mentoring them through the Hall of Science Amateur Radio Club and the American Radio Relay League.

The school's station stands out as the only active radio club in any of the city's schools. Students from the sixth through 12th grade can join, and the club was recently awarded a blue ribbon at the [Maker Faire](#) for its innovation, creativity and ingenuity. The school's radio club, which has grown to around 20 members since launching last year, has competed in contests and learned all about operating ham radios from inside the 78th Street school.

John Hale KD2LPM

John has been a science teacher at Garden School for the past 22 years.

He holds a General Class License and has been licensed since 2016. He is an Official Relay Station for the NYC/Long Island area, is the Deputy Coordinator of Net Operations for the NYC/Long Island Skywarn Program, Secretary of the Hall of Science ARC, the Net Manager for the New York / Long Island Student Traffic Net, a volunteer instructor and examiner for the ARRL, and the recipient of the Amateur of the Year for 2018.



John Hale



Michael Ricatto

Gerard Pilate N2WGF

Jerry retired from Consolidated Edison of New York as a technical specialist, section head of the Electrical Maintenance Engineering and Test Group of Con Edison's Maintenance and Construction Services Division. He is a retired member of IEEE, IAIE, and NFPA and is a former instructor of electrical apparatus for the ETC Inc. of NYC, a training school for master electricians. He currently serves as a technical consultant for RA Hoffmann Engineering.

After retiring, Jerry had time to pursue his passion, ham radio. Jerry is presently the president of the Hall of Science Amateur Radio Club (HOSARC). He is a licensed Amateur Extra with the FCC and is currently serving as the American Radio Relay League's NTS Section Traffic Manager for Long Island and New York City. He is a volunteer instructor and examiner for the ARRL.



Gerard Pilate

Michael Ricatto KK2KKK

Michael Ricatto is an Amateur Extra Class and is a successful entrepreneur and businessman.

He is devoted to his family and dedicated to serving his community. Mike is known for his work ethic and for his big heart, and has been recognized and honored for his generous contributions of both time and money to charitable organizations, political causes and to people in need.

After graduation, Mike went to work in his family's businesses, including Fratelli Ricatto Import Export Company, Red Fleet Haulage, Tally-Ho Nursery School and the Forest Hills Country Club. Today Mike is President of Ricatto Enterprises.

As Mike's businesses have grown, so has his involvement in the community. Mike serves as a member of the Board of Directors of the Italian-American Museum and is a past member of the Queens College A.C.E. Board of Directors. He has been honored as Businessman of the Year by Italian Charities of America and is the recipient of the Queens County Republican Committee Reagan Award.

Bud Trench AA3B To Talk Propagation At May 10th FLARC Speaker Series

Bud Trench AA3B will be the featured speaker on May 10th at the Fair Lawn Senior Center. His topic will be "Using Propagation Tools for Contesting and DXing." The program begins at 7PM and refreshments will be served,

Bud Trench has made over 1.2 million QSOs since first being licensed in 1970. He has a passion for contesting. He was a WRTC competitor for the first time in 2018 and is on the DXCC Honor Roll. He holds the current World Record score for CQ WW CW in the Low Power Category. He is a member of the Frankford Radio Club, First Class CW Operators' Club, CW Ops, Activity Group CW – DL, CWJF, Pa QSO Party Administration and ARRL. Bud earned a BSEE degree and Masters of Engineering Science degree from the Pennsylvania State University and retired in 2016 after working for Lockheed Martin for over 38 years. He currently resides in Boyertown, PA where he has been building his contest station since 1987.

Mark your calendar and plan to be at the Senior Center for a very educational evening.!



Bud Trench AA3B

Ron Bosco WB2GAI Highlights June 14th "DXpedition To Crete" * FLARC Speaker Program

Ever wanted to do a DXpedition? Let's meet someone who has! Not only one, but five DXpeditions!!

Ron Bosco WB2GAI will highlight our June program on Monday, June 14th (second Friday) with the highlights of his 2017 trip to Crete. The program begins at 7PM and refreshments will be served.

Before retiring, Ron spent 33 years with the telephone company. After moving to Park Ridge from the Bronx he was able to set up a station "of my dreams." He needs four more DXCC countries -- BS7H Scarborough Reef, KH3 Johnston Island, P5 North Korea and ZS8 Marion Island. He is approaching 2135 on the band / country DXCC CW Challenge, and he has five band / countries on phone.

He has found CW to be the most challenging, as he claims that it requires brain power, not computer speed or programming. Conversational CW is his greatest challenge and fun. He is also interested in the history of CW and the types of apparatus used: straight key / sideswiper, (cootie) key / bugs / paddles. He has in his collection a 1914 Vibroplex bug and a Mercury S/N 111 paddle by N2DAN/SK.

See you on June 14th for a great night of DX!!



Ron WB2GAI on location in Crete

Monday, April 29: The Great Falls Earth Day Special Event Station



Great Falls National Historical Park, Paterson

FLARC's partnership with the National Park Service and the Passaic County Board of Education is now in its fourth year, with special event station W2E to call attention to Earth Day and the work of the Park Service. [W2E Water to Electricity]

WU2S Gets The FLARC Mesh Networking Class Underway

With 14 members and guests on internet conference attendance, Randy WU2S kicked off the first-ever FLARC course in Mesh networking on 14 March.

A high interest topic from the 2019 member survey, Randy has put together a comprehensive program of content for both online and in-clubhouse learning.

The class is monthly but registration is required. Here is the link for the upcoming sessions:

<http://bit.ly/MESH-Class>

See Randy with questions or comments.

Future dates are:

Apr 11, 2019 7:00 PM
May 9, 2019 7:00 PM
Jun 13, 2019 7:00 PM
Jul 11, 2019 7:00 PM
Aug 8, 2019 7:00 PM
Sep 12, 2019 7:00 PM

Saturday, May 4: The Garretson Farm And Forge 300th Anniversary Special Event Station



Garretson Farm and Forge, River Road, Fair Lawn

History is made in Fair Lawn at one of the three pre-Revolutionary houses remaining with station W2G.

Theoretics Demystified (Continued)

As noted before, the spectrum goes all the way from one cycle at the beginning all the way up to gamma rays with wavelengths measured in pico meters, and that is almost unimaginatively small.

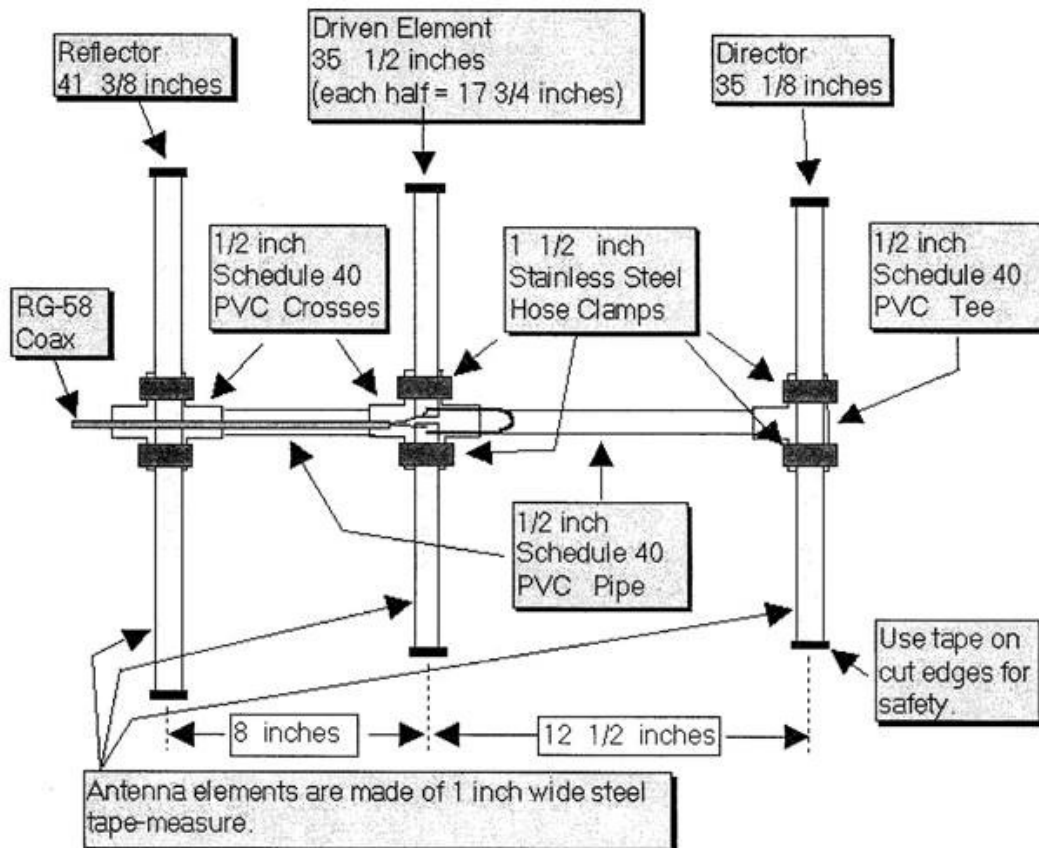
We as hams are really only concerned with the radio wave portion of the spectrum, that is from very low frequencies up to micro waves. The thing to note is that even though there is one spectrum, the energy at each part behaves differently. That fact is important to note for safety reasons so that we can be prepared to use the correct precautions when working on radio equipment. There is also some talk about the definition of electromagnetic energy, some say waves, others say particles but the newest term is 'wavicles'! Remember we are only touching the tip of the iceberg here!

73, Fred, W2ABE.



Proposal for Club Antenna Kit

Karl W2KBF would like to know if FLARC members would be interested in building a WB2HOL-inspired Tape Measure 2 Meter Beam that is widely used for Foxhunting IF the parts were provided as a kit later this year. You may have some of the parts already lying around. With this in mind, I am providing a heads-up as to what parts to save. The design is available online and is summarized below. Note that we would use 3/4" PVC pipe, not 1/2" because it is easier to bend and tuck the elements into 3/4" cross pieces for transport.



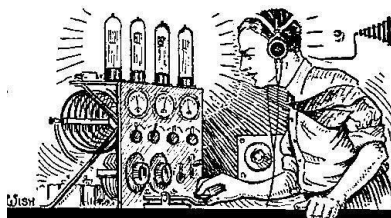
Most of these parts are available at Lowes or Home Depot and the antenna can be built for a total cost of about \$25. However, the cost will be greatly reduced if you have any of the following items on hand already:

- 1) Three PVC cross pieces (about \$2.50 each);
- 2) 112 inches of 1" steel tape (about \$4/antenna);
- 3) Six 3/4" to 1 3/4" stainless steel hose clamps (\$1.10 each);
- 4) Five feet of RG58 with BNC or SMA connector (about \$5);

While cleaning out my garage, I found an old 25 foot Stanley tape measure that I had stopped using and was going to throw out because the first few feet were beaten up. However the rest was OK. Enough for 2 antennas!

For more information, see Karl.

Karl W2KBF



The Way We Were -- The Art Of The QSL (Part 9)

By Fred Belghaus W2AAB

"Famous Names"

We hams take a lot for granted. Sometimes I think many of us just assume that the transmitters, receivers, transceivers, antennas, and whatnot that make up our shacks sort of came into existence out of nowhere, or that they were made in a back room of the dealer where we bought it. We forget that the well known manufacturers, especially in years past, were piloted by a particular person with an idea—a vision, a dream, a lot of effort, and not a little faith. Most of these were hams. This month, we will concentrate on some famous call letters, and the people behind them that helped shape our hobby over the years.

After the death of the "spark" era, by the 1920s and early '30s, most hams built simple CW oscillator-transmitters, usually a Hartley circuit or some variant of one. These used a single triode vacuum tube, a variable capacitor, a home-wound tank coil usually made of small copper tubing, a fixed capacitor, and a home-wound RF choke. If you wanted to be fancy, you added a DC milliamp meter to monitor plate current, or an RF Ammeter in the antenna line, to try and load maximum "soup" into the antenna. All these parts were mounted on a wooden base known as a "breadboard." Some actually were breadboards "borrowed" from mom's kitchen.

The transmitting frequency was determined by three things: the value of the variable capacitor, the value of the tank inductor, and the length of the antenna, including lead-in wire. Together, these circuit elements brought the transmitter to a frequency that was hopefully somewhere within an amateur band. These oscillators weren't very stable, though, and when it became practical to grind quartz crystals for RF oscillators, the result was far more reliable. Gradually, these crystal controlled oscillators replaced the often "haywire" breadboard oscillators of the past.

Reaching all the way back to 1924, our first "famous name" was the holder of the call 8GU in Erie, Pennsylvania.

Radio 2BXP West Ninth Street, Erie, Penna.
 Your av sigs were wh here 192 at 2 P.M.
 Audibility gpa Tone or Mod. RAC Wave 147 QRM ---
 RECEIVER: Single circuit, detector and 1 step amp.; Brandes fones.
 TRANSMITTER: Ten watts, Reversed feed-back circuit. CR tubes for
 rect. and large filter system; input into set 600 volts.
 Transmitting wave 152 Radiation 2
 ANTENNAE: Four wire hoop style "T", 100 ft. 8-wire lead-in.
 COUNTERPOISE: Seven wire fan, 80 ft. long, 25 ft. at arc.
 Official A.R.R.L. station. Would appreciate a card.
 Remarks: vy glad to work on after 5 p.m.
 Erie City Radio Mgr. 73 Opr: F. D. BLILEY
 Opr: D. L. Z. W., ex-8AGR, ex-9AXT

The Way We Were

Chief operator of 8GU (later W3GV) was Frank Dawson Bliley. Some six years after this QSL is dated, Frank established the Bliley Piezo-Electric Co., originally to serve the need of hams for quartz crystals. (1) Here's an early Bliley ad:

BLILEY CRYSTALS

It's wise to know who makes your crystals. Quartz crystals engraved with the name **BLILEY** and the **EXACT FREQUENCY** (within 0.1%) positively identifies the finest quality. A **GOOD** crystal is the best assurance of real satisfaction. When buying them anywhere, always ask for **BLILEY'S**.

Guaranteed, power-type, inch square crystals supplied approximately to your specified frequency—1715-2000 kc., \$5.50; 3500-4000 kc., \$5.50; 4667-4800 kc., \$7.50; 7000-7300 kc., \$10.00. Mountings (D-P, P-I), \$2.50.

BLILEY PIEZO-ELECTRIC CO.
Masonic Temple Bldg., ERIE, PA.

From: *Modern Radio*, April, 1932


Later, the company branched out to serve the commercial, government, and other markets, and is still in business, helmed by Frank's son, Charles, K3NAU, but no longer making crystals for hams.

Another early crystal manufacturer was Valpey Crystals, established in 1931 by Theodore S. ("Ted") Valpey, W1ATP. The company still exists today as CTS-Valpey Corp., and is headed by Ted's son, Theodore Valpey, Jr. Today, CTS-Valpey serves industry and government customers, providing precision crystal oscillators and ultrasonic transducers. (2) Here's founder Ted's QSL from 1932:


Radio 2CBL Ur CW Sigs Wkd Hr at 7:45 PM EST 7/3 1932

QSA 5 R 2 Tone PDC Qsb — Qrm — Qrn —

LACONIA N.H.



W1ATP



OPR. WKAV EX OPR. WLEX, WLEY, WIXAY

Trans: 247X 210 DOUB Ckt 110V Volts 150 Watts 276A Tube

Receiver 235 DCT Ckt., es 2 step Audio 223-247

Remarks TNX for C.D. - SUR 9/10/2 BE CUL es 73
UR 1ST WRKED + ROOM 2CBL

Ted Valpey

Ted


W1BEF PRESS

The Way We Were

Ted's transmitter ran a 247 driving a pair of 210s, (crystal controlled, of course), for 150 watts input. Interestingly, the station Ted worked was W2CBL, which my December, 1931 Call Book identifies as George F. Jones, Jr., 6 Burnham Place, in the Radburn section of Fair Lawn.

Great companies usually have humble beginnings. One of the most famous company names in electronics was, and still is, Hewlett-Packard. In 1939, David Packard and Bill Hewlett established the company in Packard's garage. Its first product was an audio oscillator, sold to Walt Disney studios, for use on the soundtrack of the Disney film, *Fantasia*. The company soon grew into one of the most respected manufacturers of high quality electronic test and measurement equipment, before shifting gears to concentrate on calculators, computers, and computer printers. (3)

Here's a QSL from the "main man," David Packard, 9DRV, dated 1929. Note that the card states that even future "giant" David Packard didn't have a crystal oscillator yet. He was running a Hartley oscillator transmitter!

SENDS GREETINGS TO 9C1W		MTR. SIGS 210	
From PUEBLO, COLORADO "In the Shadow of the Rockies"		—XMTR— 210 TUBE Hartley CKT 500 VOLTS 281 FM 247 ES USING 247 A ANT. Schenell RCVR 2 DET. ES AUDIO	
		UR CRD OM? Pueblo is the "Gateway City" to the San Isabel National Forest and is destined to become the center of aviation in the Middle-West. For more information, write our Commerce Club and they will tell you all about our city.	
A Summer Home in the San Isabel National Forest		VERY 73 D Packard 9DRV	
A. R. R. L.		OPR S. I. R. C.	

The name Lapp may not be familiar to many radio amateurs, but it is well known in the electric power industry, as well as in broadcasting and government. In 1916, the Lapp Insulator Company was established in Le Roy, New York, by John S. Lapp. Its objective was to solve a problem in those days, the frequent failure of glass insulators in high voltage applications. Lapp pioneered the use of porcelain and steatite materials instead of glass for greater reliability. During World War II, the company supplied many thousands of insulators to the military for radio antennas. (4) Some of these no doubt found their way into ham shacks, too.



The Way We Were

These products also found applications in high power radio stations, of course, especially as base insulators for AM and shortwave broadcast towers. Lapp was a "family" operation, with several family members holding key positions. One of these, apparently, was Rudolph S. Lapp, W8BCG, about whom I cannot discover any further information. Here's Rudolph's QSL, though, from 1932, which includes a little advertising on the card:

Le Roy, N. Y.
The home of
LAPP INSULATOR CO., INC.
Makers of Lapp Vacuum Process Porcelain
W8BCG

Radio <u>WIKX</u> QSA - <u>2</u> Mod <u>3</u> Date <u>5/9/32</u> at <u>8:30 EST</u> Remarks: <u>Sorry didn't hold</u> <u>you on, Carl.</u> Kindly QSL	Receiver: <u>Scott all Wave.</u> Transmitter: <u>200 Watts to last stage</u> <u>Class "B" mod.</u> 73's RUDOLPH S. LAPP
---	--

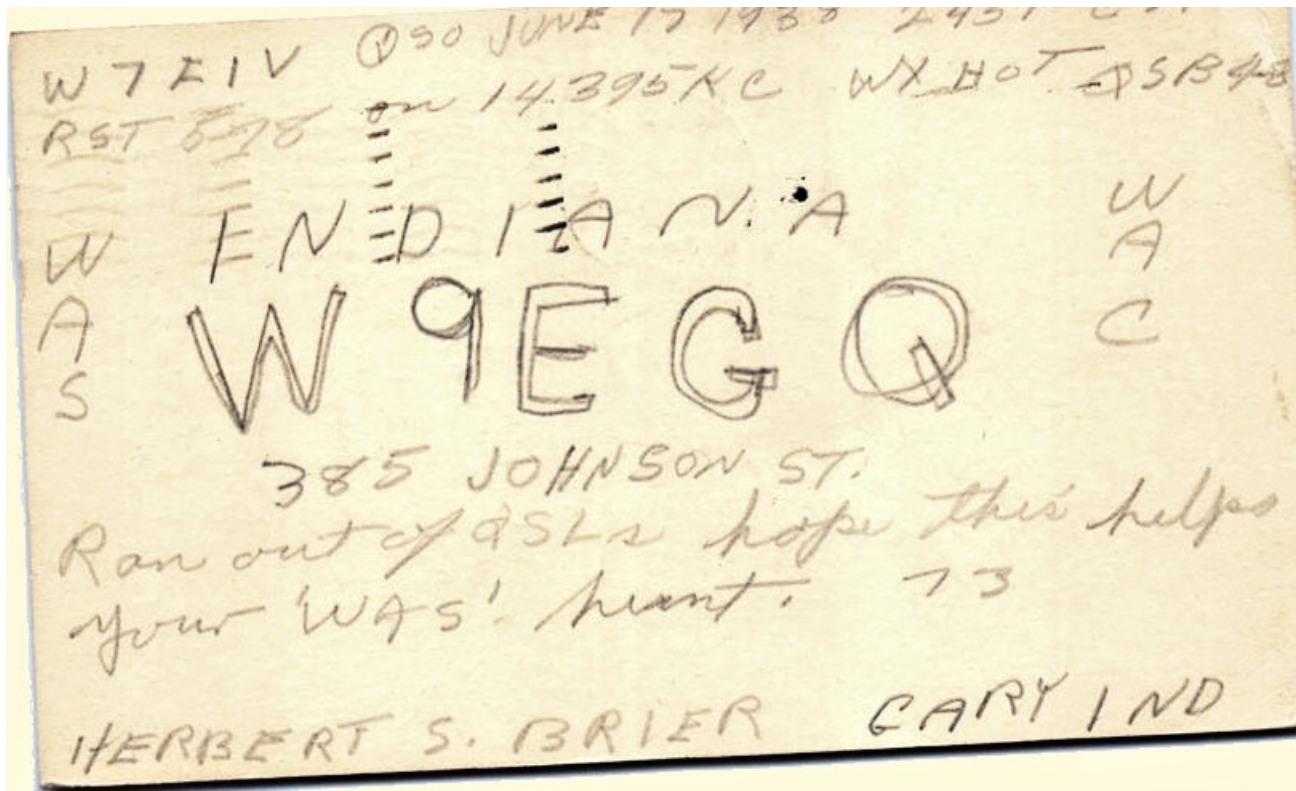
In the long history of amateur radio, few names have stood out as one of the best friends of beginners than Herbert S. Brier, W9EGQ. Herb edited several columns in national magazines throughout the 1950s and '60s, devoted specifically to the interests of, and offering advice to, Novice hams.

His column, "With the Novice Hams" appeared in *Popular Electronics* magazine, the first place I saw his column, in the late 1950s. He also appeared regularly in *CQ Magazine*, under the column heading, "Novice Shack." Herb also wrote articles for *QST*.

What is not widely known is that Herb was a paraplegic, and he wrote all his columns and articles from his bedside. Herb was a "self-taught" engineer, builder of equipment, and active member of several message handling nets. He passed away in 1977. (5)

The Way We Were

Herb's early beginnings in amateur radio are apparent from this hand-drawn QSL card dating from 1938:



Not all major contributors to amateur radio were manufacturers. Some, like "Bil" Harrison, W2AVA, of Harrison Radio in New York City, enabled thousands of amateurs to obtain a wide variety of amateur radio equipment from his store. There have been many others.

One of them was Burghardt Radio Supply, later Burghardt Amateur Center. The company was established in the late 1930s by Stan Burghardt, originally W9BJV, later, WØBJV, and finally, WØIT. (6) Here's a Burghardt ad from 1961:

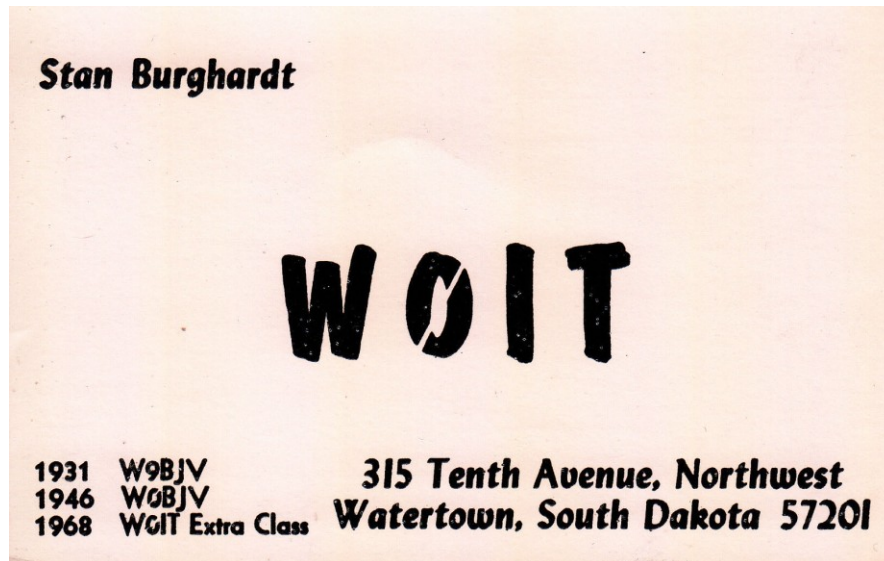
Act-WRITE NOW!
Better Yet — WIRE OR CALL TODAY FOR
1. Burghardt's "Deal of the Month" For October.
2. Our October Listing of Reconditioned Equipment
Carrying Burghardt's "Seal of Satisfaction."
YOU'LL BE GLAD YOU DID!
• Featuring...
Central Electronics, Collins, Drake, Gonset, Halli-
crafters, Hammarlund, Hy-Gain, Johnson, Mosley,
National.
• Your Direct Line to Every Manufacturer.

Phone TU 6-5749
Box 746B
Watertown, So. Dakota

73 Magazine October, 1961

The Way We Were

Burghardt sold the business in 1982, and by 2009, owner Jim Smith, WØMJY, announced that the company would no longer sell amateur equipment, instead offer only repair services. (7) Here's a QSL from founder Stan, as WØIT, dated 1972:



For longtime DXers, there was no more famous call than that of W9BRD. Operator Rod Newkirk edited the "How's DX?" column in *QST* from 1947 to 1978, featuring a lighthearted take on the fine art of DXing, and which featured the magnificent cartoon artwork of Phil "Gil" Gildersleeve, W1CJD. Gildersleeve's cartoons depicted the funnier aspects of DXing, and included the exploits of "Jeeves," butler to an imaginary wealthy ham, and "Prescott." Newkirk sometimes spiced up his columns with limericks attacking poor operators. He reported on the growing use of SSB for DXing, and the first accounts of 2 meter "spotting" nets for alerting DXers to the frequency where a rare DX station could be found. While at A.R.R.L. Headquarters, he obtained the call W1VMW, later retrieving his W9 call upon his return to Illinois. In 1997, he moved to Ottawa, Canada, and obtained the call VA3ZBB, to match the call of his wife Betty, VE3ZBB. He became a Silent Key in 2012. (8)

Here are two cards from W9BRD, the first from 1941, for a contact in the "A.R.R.L. QSO Party," and the second from 1970, on the "official" A.R.R.L. Headquarters Staff QSL:

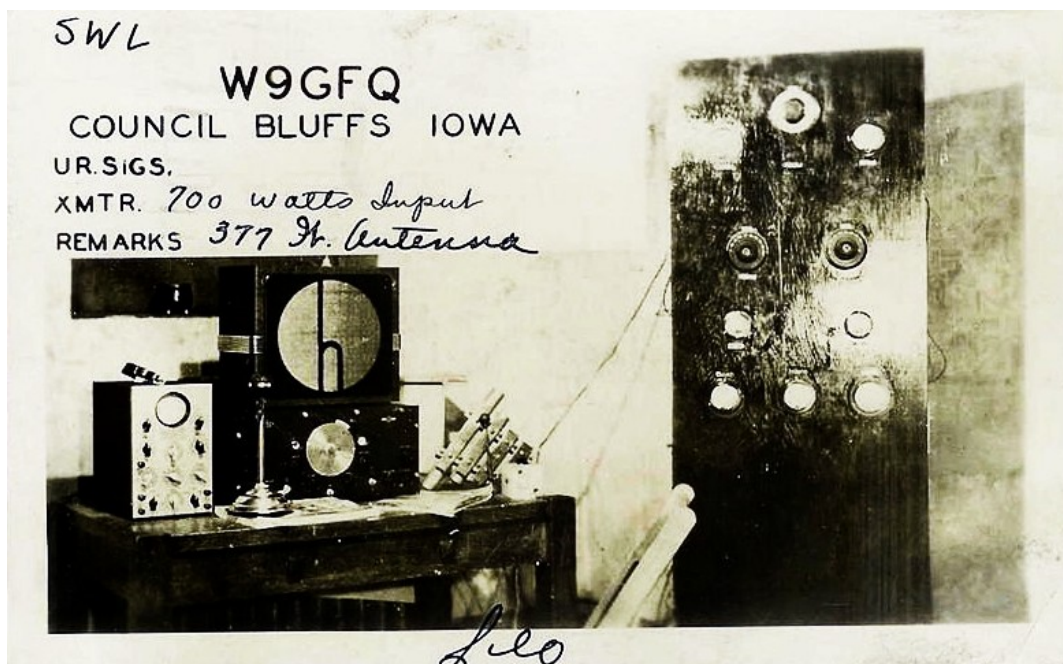


The Way We Were



The call W9BRD survives, however. It is presently licensed to Rod's son, David, who lives in Montclair, New Jersey. (9) David is ex-W9VES and WB9CJS. For an excellent, detailed article about his dad, see note (10), below.

One of the largest amateur dealers was World Radio Laboratories, or WRL for short. They had their own product line of transmitters, antennas, and accessories, and their products are still in use and cherished by collectors. The company was established in 1935 by Leo I. Meyerson, then W9GFQ, and later, W0GFQ. Leo's objective was to offer less expensive alternatives to other manufacturers' products. (11) Here's an early QSL from Leo dating from the late 1930s:



The Way We Were

Leo's station in those days consisted of a homemade, rack mounted transmitter running 700 watts input, and a Hallicrafters SX-11 "Super Skyriders," first manufactured in 1936, with a matching large size Hallicrafters speaker. The antenna is described as being 377 feet long. His operating desk also sports a microphone and oscilloscope, possibly to monitor his modulation percentage. Note also the "chimes" to the right of the receiver. This was a throwback to the days when broadcast stations used to identify with their call letters, network affiliation, and three notes from chimes. Are you old enough to remember the distinctive N.B.C. chimes?

Moving on to the 1950's, here's another card from Leo, as W0GFQ:

W 0 G F Q
704 Forest Drive Council Bluffs, Iowa
Resident Phone 2898
Business Phone 7795



TRANSMITTER: Collins 310-B1 VFO WRL-400A Globe King
RECEIVER: SX-71 VHF-152 for 6 & 2 WRL Phonepatch
ANTENNA: Four element folded dipole over Workshop 14
3 element 20 Mtr. Gordon Rotator. 625' longwire on 75 Mtr.

Dear OM;
Sure happy to make contact with you and hope to see you again soon.
If you are ever out this way look me up for a personal QSO.
73 & Gud luck Leo I. Meyerson, Pres. World Radio Labs

The Way We Were

Note that by now, Leo includes some WRL equipment in his shack, including the well known "Globe King 400A" transmitter, much favored by AM operators to this day. The receiver, though, is a Hallicrafters SX-71, first introduced in 1951.

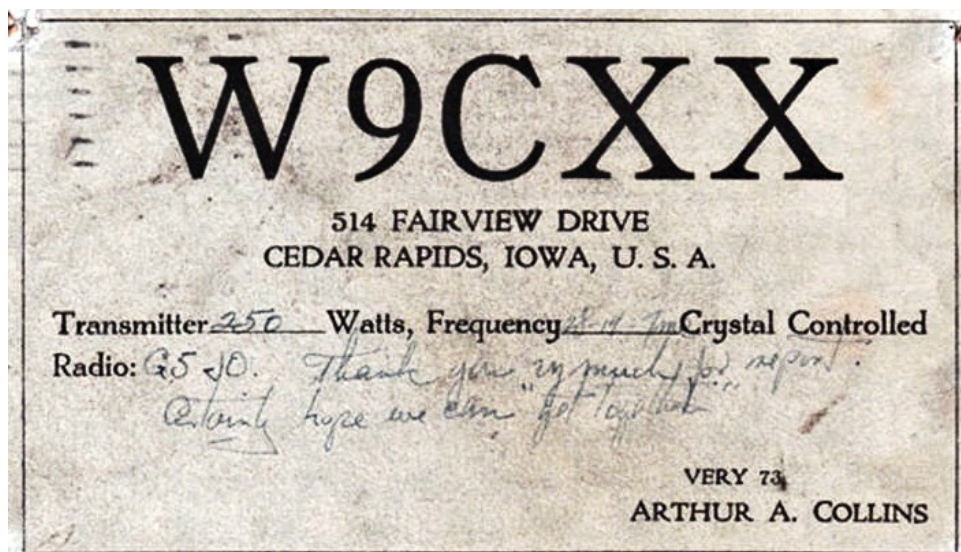
WRL's first successful amateur transmitter was the "Globe Trotter," introduced in 1946, covering 80 through 10 meters, and running 40 watts CW, 25 watts AM. It was followed by the "Trotter 40," in 1952, which included 160 meters at the same power levels. His "Novice" transmitter, the "CW-7," ran 7 watts input on 80 meters only, and first appeared in their 1952 catalog, shortly after the Novice Class license was established. All their transmitters were offered as kits or in "wired" form, except for the "CW-7," which was sold as a kit only. (12) Your author first started in ham radio as a Novice with a WRL "Globe Scout 40A," which is still in operation.

Meyerson later started Globe Electronics and Galaxy Electronics, making a brief transition to SSB transceivers in the 1960s. Their earlier equipment is still very much in use, however, and quite popular with collectors.

Perhaps the most successful of all amateur radio equipment manufacturers was Collins Radio, established in 1933 by Arthur Collins, then W9CXX, and later, WØCXX. First licensed in 1925, Collins was an avid amateur operator, as well as designer and builder of equipment. He studied Electrical Engineering briefly, but quit college after his freshman year, only taking occasional courses thereafter without earning a degree. Nevertheless, his technical knowledge increased from self-study, at times in advance of contemporary thinking. He published a number of technical articles, chiefly concerning circuit design and radio propagation. (13)

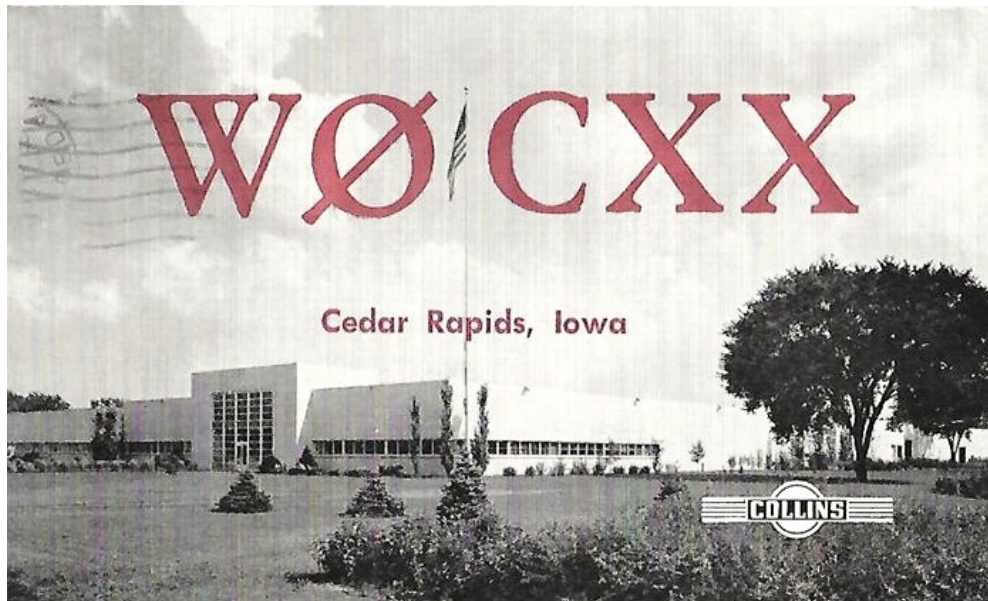
Starting the business in his basement, Collins later opened his first factory in his hometown of Cedar Rapids, Iowa, in 1940. His transmitters were, for many years, considered "top of the line" for amateurs, as early as the 1930s. Their professional appearance and advanced designs stood head and shoulders above competitors' offerings. During World War II, the company produced many radio products, including the famous AN/ART-13 "autotune" transmitter, designed for use in thousands of B-29 bombers. In subsequent years, Collins Radio produced broadcast transmitters, single sideband (SSB) equipment, developed the trailblazing Collins mechanical filters, and transceivers for both the amateur and military markets. By now, Collins had become a Fortune 500 company. Additional plants were opened in Texas and California, and later, France. The company also developed antennas, satellite equipment, and computer systems. (14) It has since become part of Rockwell International.

Here's an early QSL from Art Collins, dating from 1929:



The Way We Were

And another, from 1949, featuring a picture of their main Cedar Rapids plant:



In the 1950s and early '60s, there were a number of smaller companies that competed with Collins for the SSB market, such as Eldico, Central Electronics, Barker & Williamson and Cosmos Industries, maker of the Cosmophone series, but only one proved a serious challenger to Collins' supremacy in reputation and reliability. That company was R.L. Drake, of Miamisburg, Ohio.

R.L. Drake was founded by Robert L. Drake, W8CYE, in 1943. Their first products were low and high pass filters for amateur and government use. However, in 1957, Drake developed the 1A Receiver, a revolutionary design effort. (15) It was the first amateur band receiver designed specifically for SSB reception. It was also compact, occupying less than half the desk space of a comparable Collins receiver of their "S-Line" series, yet with excellent performance. This was followed by the 1B receiver, then the 2A, and 2B, which, when combined with their outboard 2BQ "Q" Multiplier, made a very considerable impact on the amateur market.

In 1963, Drake went one better. They developed the TR-3 Transceiver, an all band, CW, AM, and SSB rig that sold for roughly half the price of the Collins KWM2A, with full band coverage, and higher power. It changed the face of amateur radio forever. Then followed several improved models, TR-4, TR-4C, T-4, R-4, with several update models, Novice equipment, SWL receivers, several linear amplifiers, ATUs, several VHF-UHF FM transceivers, up to their final transceiver design, the all solid-state TR-7, and a general coverage shortwave receiver, the R-8, the last of which were produced in 2005. (16)

But all good things must come to an end, and when Drake went out of the amateur radio business, the ham radio world had changed again, essentially ending the dominance of U.S. manufacturers in the transceiver market.

For a very comprehensive history of the R.L. Drake Company, see note (17), below, and for a detailed article on their products with plenty of pictures, see note (18), below.

The Way We Were

Here's a QSL from R.L. Drake, W8CYE, dated 1947, just 4 years after the company was established. I wonder if Drake had any idea how much his company would change the face of amateur radio in the coming years.

R.R.1, MIAMISBURG, OHIO
W8CYE

Amateur Radio Station *VE1QY* Confirming our QSO of *June 15*
1947 at *6:30* PM., *E* ST. Ur *50* Mc. *phone* report was
Q *5* S *9*. Antenna *4 EL*. Receiver *R9w+Gonset*
Xmtr. *829B* *807 Mods* *100* Watts input
Remarks *Tnx for QSO Jerry see you agn.*
Bob R. L. Drake

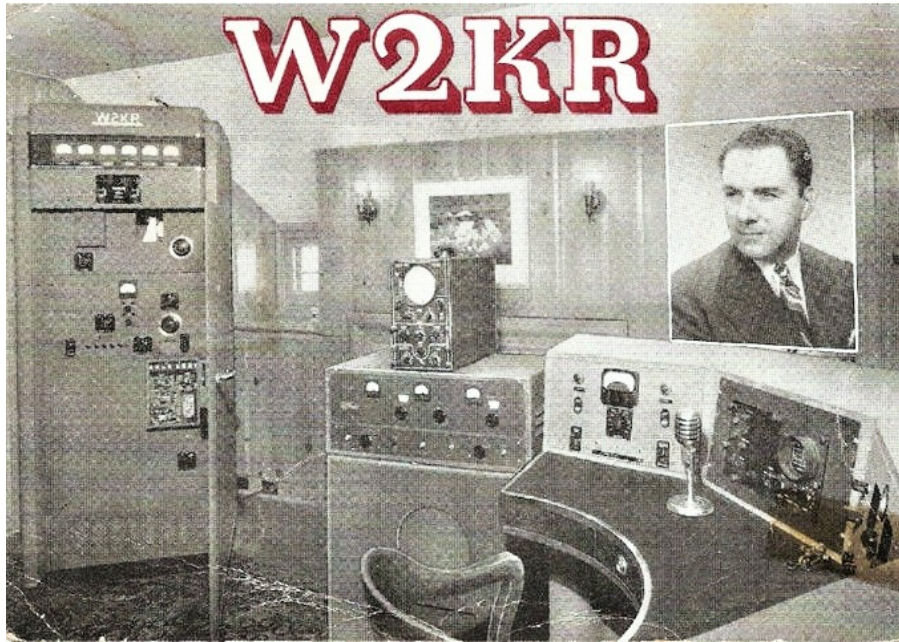
By "Mac" W8WRL
Pse QSL OM Tnx

In 1936, another once-well-known manufacturer made its appearance -- the Transmitter Equipment Manufacturing Company, commonly known as TEMCO. TEMCO was founded by Mort Kahn, W2KR, in lower Manhattan, and sold to the amateur, commercial, and military markets. These transmitters were often custom or semi-custom built, with most of the amateur equipment built in the late 1940s to early '50s.

Although TEMCO became very successful, they are barely remembered today for their amateur products. Much of that success was no doubt due to concentrating on non-amateur customers. Among the most impressive stations built by TEMCO were the Master Control consoles for the U.S. Army MARS station at the Pentagon, K4USA, and the U.S. Air Force MARS station there, K4AF. (19) Advertising in ham magazines was minimal, and, I suspect, prices were probably out of the reach of most amateurs. The equipment, however, always had a solid reputation, technically, and there are still some TEMCO transmitters in use on the ham bands, mainly on the AM mode.

Kahn built himself a professional-looking ham station at his home in Great Neck, New York, a pricey neighborhood on Long Island's North Shore "Gold Coast" that resembled a broadcast studio more than a ham shack. Here's Mort's QSL from 1956:

The Way We Were



The large, rack-mounted unit at left, and the transmitter beneath the oscilloscope are TEMCO products. Note also the early panadaptor, at right. Not only are TEMCO transmitters highly collectible, but even their company literature and advertising, as borne out by a look at eBay.

There are numerous hams responsible for manufacturing antennas for amateurs. Two of them, with long, successful histories are Telrex and Mosley. Telrex was founded by antenna design engineer Mike Ercolino, W2BDS. In the 1940s, with the new but growing television industry, Mike designed an improved TV receiving antenna for "fringe areas," (viewers 50 miles or so away from the TV stations in New York City). In a few years, he started designing transmitting antennas, chiefly Yagi beams, for both amateur, commercial, and government applications. (20) His beam antennas are legendary, masterpieces of rugged mechanical construction and excellent electrical characteristics, with prices to match. Today, there are still some Telrex beams in use, some having been built in the 1950s!

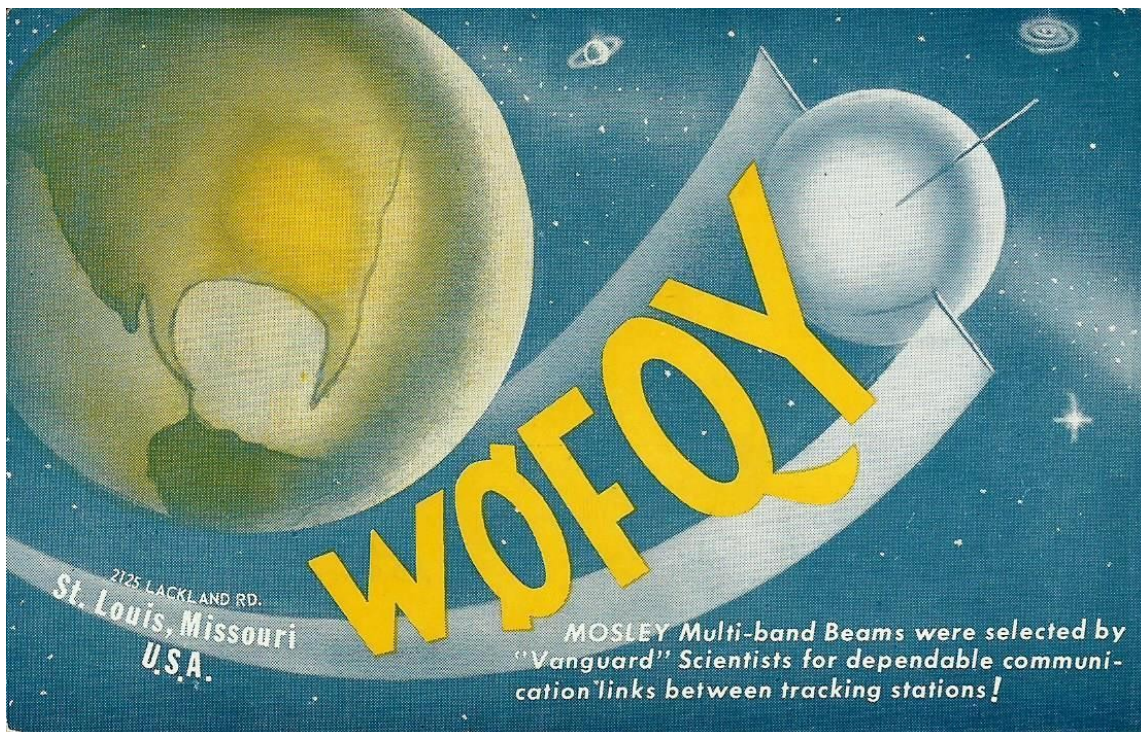


The Way We Were

Pictured on the card is Mike's invention, the "Double V" antenna for TV reception. Some of them are still seen on houses today! One source (21) states that Mike designed a homing device during World War II used by U.S. forces during the D-Day Invasion, and again in West Africa, making it possible for paratroopers to identify friendly ground forces. His company also produced the equally legendary "Big Bertha," a fully rotatable monopole that also served as a rotating "tower" for large beam antennas. Your author knows of at least two Bergen County amateurs who once had these, each festooned with full sized monoband Yagi beams, some for several bands. They were *impressive*!

In the late 1940s, a small company was formed in the basement of a house in St. Louis, Missouri by Carl Mosley, WØFQY. It was called Mosley Electronic Specialties, and their first products were tube socket adapters. With the growth of television, Mosley started making antenna accessories for TV antennas. In 1951, the company changed name to Mosley Electronics, and introduced its first antenna product for amateurs, the "Vest Pocket Beam." Antenna products were also made for military communications. Around 1955, its first "trap" beam antenna was introduced, the TA-33, a tri-band beam for 10, 15, and 20 meters, using inductors to shorten element lengths. The business flourished, and Mosley added CB and Business Band antennas to their product mix. (22) To this day, Mosley remains one of the leading manufacturers of antennas for amateurs as well as commercial and government markets.

Here's a QSL from founder Carl Mosley, dated 1961:

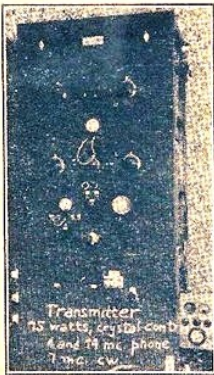


The Way We Were


Speaking of antennas, there is one name that stands above all others in this field, that of Dr. John Kraus, W8JK. Dr. Kraus was a physicist, whose work in antenna theory at Ohio State University resulted in the classic text, *Antennas*; for many years, and probably still, the definitive work on the subject. Dr. Kraus' many contributions included the development of the corner reflector and helical antenna, contributions to the science of radio astronomy, through construction of the Big Ear radio telescope at Ohio State, even work in nuclear physics, and the development of the university's cyclotron, as well as his participation in the SETI (Search for Extra Terrestrial Intelligence) project. (23)

Here's a QSL from Dr. Kraus' early days at Ohio State, in 1933:


Arlington Blvd., ANN ARBOR, MICHIGAN, U. S. A.



W8JK



Radio.....Ur.....sigs wkd
 on.....193 at.....E.S.T.
 QSA.....Conds.....QRH.....mc
 DX QSO.....34 countries in.....5 continents



PORTABLE
W8BEE

Associate Institute of
Radio Engineers

Many thanks for your report on the reception of
 my 75 meter fone signals on Feb. 10, 1933.
 Vy 73, JOHN D. KRAUS

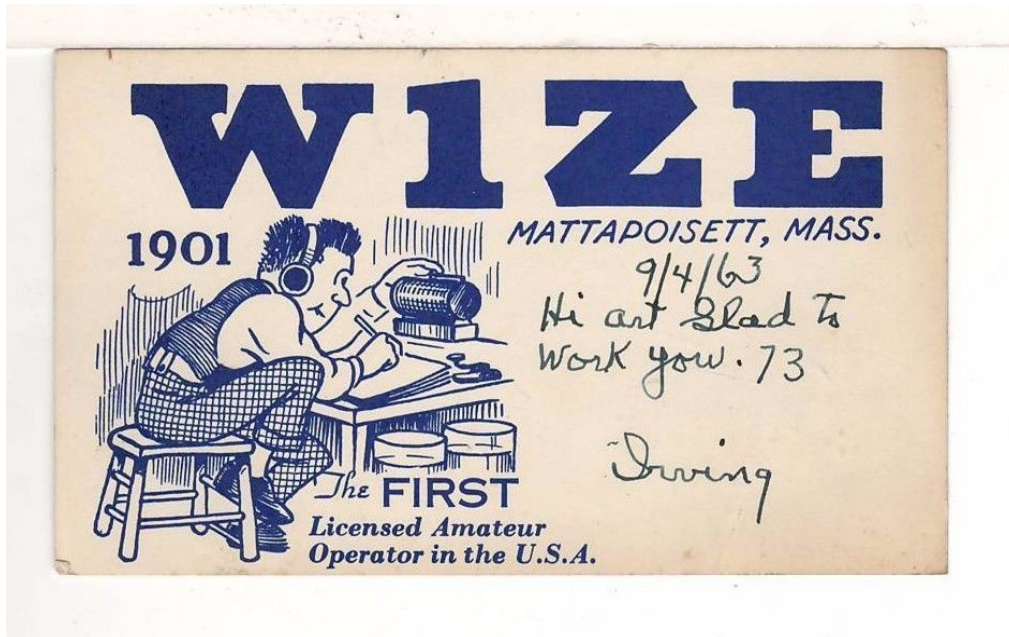
When I think of "firsts" in amateur radio, one name and call sign comes to mind before all others. That name and call is Irving Vermilya, W1ZE. Vermilya has stated that he was the first person in line at the Brooklyn Navy Yard on December 12, 1912, to take (and pass) the first amateur radio license exam, which was called the "Certificate of Skill," with an issuance number of 1. His first call was 2OR, later 1HAA, 1ZE, and finally, W1ZE. His amateur career started much earlier, however, based upon his further claim that he first operated an amateur station and made his first 2-way QSO in 1901, with the self-assigned call letters "VN." He later published an article detailing his early amateur work entitled, "Amateur Number One," which appeared in *QST*, for February-March, 1917. Later, he served as the first President and Co-Founder of the Old Old Timers Club (24)

His "Special Land" Station license, 1ZE, having the "Z" in the call, enabled him to begin experimental broadcasts from his home in 1921. He built broadcast station WDAU in 1922, which then became WBBG, and finally, WNBH, which still exists. In the 1930s, he set up the first police radio system for the city of New Bedford, Massachusetts, operating under the call sign WPFN. (25)

Somewhere in my archives is a newspaper clipping announcing his death, and attributing his demise to a "self-inflicted single gunshot wound," due to "despondency" over failing health, a tragic end to an early and distinguished career in amateur and commercial radio.

The Way We Were

Here's a QSL from W1ZE dated 1963, four months before his passing:



A Clapp oscillator is an improved version of a Colpitts circuit, using an inductor and three capacitors to determine frequency, in contrast to the Colpitts, which uses only two capacitors and an inductor. The Clapp circuit provides better frequency stability, and is in common use today in VFOs. (26)


It was invented by James K. Clapp, W1OD, graduate of M.I.T., and longtime engineer for the General Radio Company until his retirement in 1957. The Clapp oscillator circuit was used in several General Radio products, along with a crystal oscillator circuit and his patented design for a temperature-controlled crystal oven to insure crystal frequency stability. The well known Clapp circuit was introduced in 1948. (27) Here's Clapp's QSL from 1959, during his period of retirement in Florida:

W1OD / 4

JIM CLAPP
 "LAKEWOOD", MEREDITH NECK, N. H.
 "HAPPY LANDING", MANASOTA KEY, ✓
 ENGLEWOOD, FLA., U. S. A.

Ex: KD JS 10B
 AGP 10JN 105X
 GARRISON CO. RADIO-
 ENGINE, USN.

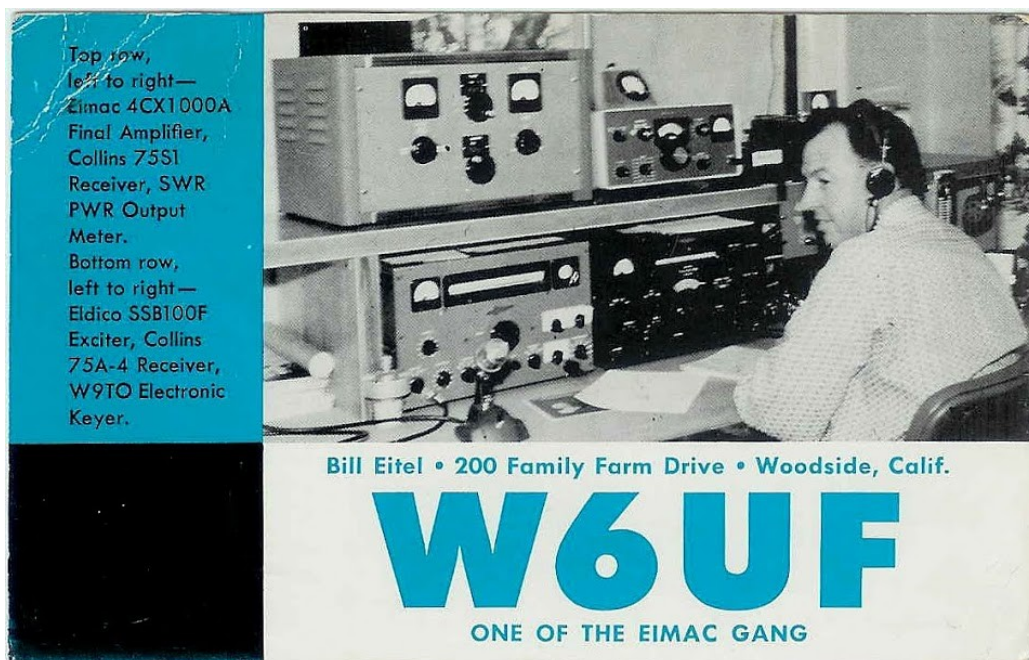
Confirming QSO with Radio W1OQP
 Date May 5 1959 Time 1648 ZST
 Freq 7.05 Mc RT / CW / SSB RST 589
 Xmtr DX40 Input 75 Watts
 Rcvr GPR 90 Ant Folded dipole
pre QSL Since 1909 Jim Clapp General Radio Company (Ret'd)
 007C



The Way We Were

If you've ever owned or operated a vacuum tube linear amplifier, chances are that the high power transmitting tubes in it were made by Eitel-McCullough, more commonly known as Eimac™. The Eimac story starts with two California DXers. In 1932, Bill Eitel, W6UF, and Jack McCullough, W6CHE intended to work more DX by building high power transmitters. But the high power tubes available required 1,000 volts for the plate. That was more voltage than they could safely provide with their power transformers. Their employer was Heinz & Kaufman, a manufacturer of transmitting tubes. They convinced the company president to allow them to develop high power tubes that operated at lower plate voltages for the amateur market. The result was the type HK-354. (28) In Class C service and with 4,000 volts applied to the plate, it was capable of over 900 watts output! Although these new designs were rated to operate up to 3 and 4KV, they were still efficient and useable at the 1 KV plate voltage the amateurs were able to provide.

They then decided that they could build even better tubes on their own, so in 1934, they established their own company, and their first product was the 150T triode, (29) capable of 450 watts output in Class C with a plate voltage of 3,000. Later, they produced tubes for the government and military, broadcasting and commercial markets covering frequencies up to UHF and microwaves. But they never abandoned their core customers in ham radio, and Eimac tubes remain the "gold standard" in high power transmitting tubes for amateurs to this day. Here's a QSL from Bill, W6UF, from the 1960s:



One of the most popular antennas for amateurs, second only to the standard, simple dipole, is the G5RV. It was designed by Louis Varney, G5RV, in 1946. The standard design has a total length of 102 feet, (chosen as the length of 3 half waves on 20 meters), fed with a 34 foot matching section of open wire line, (or 31 foot section of ladder line), then a random length of 52 ohm coax to the rig. (30)

It is a multi-band antenna, but not an "all band" antenna. It presents too high an SWR on WARC bands to be recommended for use there.

The Way We Were

There are also other versions of the G5RV antenna, notably one by ZS6BKW, with shortened length to fit in smaller yards, and added performance on 17 and 12 meters. (31) Other shortened versions were designed by W5ANB and G0FAH, as described in a post on eHam. (32)

Lou Varney was well known on the HF bands. He was an excellent CW operator, and longtime member of the First Class CW Operator's Club (F.O.C.). In later years, Lou retired to Uruguay, and was issued the call CX5RV. Here's a classic G5RV QSL from 1950:



Another well known name in radio is Jennings, manufacturer of vacuum variable capacitors, used in high power transmitters, RF amplifiers, and ATUs. The company was founded in 1942 as Jennings Radio Manufacturing Company. (33) Its founder was Jo Jennings, W6EI, whose 1965 QSL is shown below.



The company is now Jennings Technology Company, a part of AMS Technology. It has expanded its product line to include fixed and variable vacuum capacitors, gas capacitors, vacuum and gas relays, contactors, interrupters, and coaxial relays. (34)

The Way We Were

During the 1960s, "Jack" Troster, W6ISQ, wrote numerous humor articles for *QST*, poking fun at many of our ham "foibles." These articles were illustrated with great effect by "Gil" Gildersleeve, W1CJD.

Troster's articles took on such topics as poor operators (on CW and SSB), DXing, message handling, Field Day and other contests, antennas, beginners and old timers, and so on. Nobody, it seems, escaped his barbs, but always with more than a little truth in them. Here's a QSL from "Jack," dated 1961:



"Jack" was first licensed in 1935 as W2ISQ in Yonkers, New York. He was past President of the Northern California DX Club and the Northern California Contest Club, and co-founder of the Northern California DX Foundation. (35) He was a well respected member of the ham community, who made many of us smile knowingly from reading his articles. He passed away in 2014.

Until next month,
73,

Fred W2AAB



The Way We Were : Notes To #9

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ED-ITORIAL: The Real Membership Threat To FLARC

I look at the roster that AI WA2OWL sends around so often with smile of satisfaction. FLARC had about 150 members at New Year's and will probably close the member year at around 130. It's no surprise. Believe it or not, not everyone renews. There is always churn in a membership business and to have an attrition of about 13% is actually quite good. If luck is with us, we'll have a number greater than 150 at the end of 2019.

But there is a threat lurking in the numbers and that is the dearth of younger hams by age and Technicians by license class. There would seem to be a correlation but let's just focus on license. class.

In the April issue of *QST*, the ARRL points out that just over half of all US licenses hold a Technician license. That's pretty much the inverse of FLARC membership as the following table shows:

License Class	Total US Licenses	FLARC Membership
Technician	51%	8%
General	23%	37%
Extra	20%	51%
Novice/Advanced	6%	4%

As you can see, the numbers are nearly inverted. Yes, the numbers are apples to oranges. Licenses do not tell you if you belong to a club. But for all the "new hams" that get their Technician licenses, few stick. And, yes, most clubs have a similar "license class pyramid" as we do from what I've seen in getting around to other NNJ clubs.

The difference is what we can do about it as FLARC. Enticing more younger Technician hams and making what we do relevant for them is an absolute must. What we want as established club members with mostly higher tickets are not the same as those just coming into the hobby with little knowledge but much enthusiasm.

If we don't respond collectively, we will have a problem in the longer-term. It is not only a marketing problem. But it is also a "content" and "environment" problem for the club in retaining 21st century hams anchored in digital rather than the comfortable 20th century hams of which we are heavily composed. The move to upgrade equipment, engage in digital operation (re: FT8), etc. are all good steps in the right direction. It's also our actions and our activities that will create a more 21st century club and help make those who want to join the hobby find a home that truly welcomes them. DE Ed WX2R

Fair Lawn RACES/ARES Corner

As a reminder, the Bergen County RACES nets are held on the 2nd and 4th Wednesdays every month at 1945 and various towns host these nets throughout the year. Two repeaters are utilized for these nets - Paramus, NJ (RX 146.79 / TX 146.19, PL TX Tone 141.3) and Franklin Lakes, NJ (RX 146.79 / TX 146.19, PL TX Tone 162.2). The Franklin Lakes repeater is the primary repeater.

Our next FL-RACES KB2FLR net will take place on Wednesday, April 10th at 1930 hours. Please make a note of the new time. We may change the date to the first Wednesday of the month beginning in May.

The Fair Lawn ARC Repeater is used (RX 145.47 MHz / TX 144.87, PL TX Tone 167.9 Hz). Thank you to the Fair Lawn Amateur Radio Club for permitting FL-RACES for using the repeater.

The volunteer efforts of our members are very much appreciated. All of the events noted above could not have happened without you.

Our monthly meetings usually take place right after the FLARC business meeting. Please join us for the next FL-RACES meeting.

If you are interested in joining the Fair Lawn RACES, please contact me. You don't have to be a Fair Lawn resident to be a part of Fair Lawn RACES.

For information regarding Bergen County RACES, please go to <http://www.bcnjraces.org>.

Thank you very much. 73.

DE Dave KD2MOB



WU2S And FLARC Get Recognition

ARRL NNJ SM Rob Roschewsk KA2PBT was listening to "Linux in the Hamshack" on the way in on March 26th and he heard a story about Randy and FLARC -- Randy for his Mesh work and the club for The Resonator! Tnx Rob

Meanwhile, Praise About The K1JT Program From A FLARC Member

Lee KD2DRS had this note of recognition about the appearance of Joe Taylor K1JT at the club on March 15th...

"I'm probably the 100th person to say this but -- Joe Taylor, what a home run! Not only a Nobel Laureate BUT he pulls the covers off a new mode! I just absolutely loved it! ... I felt I was at a historic moment when he unveiled that to the group... You're going to scoop *Ham Nation, Amateur Radio Roundtable*(W5KUB), *ICQ, This Week in Amateur Radio*, and the ARRL daily news!"

Indeed we did!! TNX Lee!!

In a Nutshell

In a nutshell, the word for this month, and every month, is SAFETY! Recently there have been news of two fatal tower accidents. Do not have the details, but we need to remember that ham radio is a hobby and it is worth some sacrifice but not the ultimate one.

Safety is paramount whether it is tower work, electrical and electronic work or dealing with RF problems. So as the weather gets better and we work outside or just on a rig, observe all safety precautions with the proper eye, ear and fall arrest equipment.

Yes it is very easy to bypass those, especially if it is a quick, small job, and we all have the tendency to do it, but don't be an April Fool and put yourself at risk.

73, Fred, W2ABE.

FL-RACES/FL-ARES Meeting Minutes, March 27, 2019

Present: David KD2MOB, Brian KD2KLN, Ed WX2R, Thom W2NZ, Karl W2KBF.

David called the meeting to order at 7:14 PM EDT. David reminded everyone to sign up for ARES Connect.

David reminded everyone of the Chapel 5k Run in Lincoln Park on Saturday May 4. Contact Gordon W2TTT if you would like to assist with radio communications. (This conflicts with the FLARC event at Garretson Forge).

David reminded everyone of the MESH webinars being run by Randy WU2S.

Brian KD2KLN received certificates for completing online training. These are to be sent to FL-OEM Coordinator Wendy Alvarez directly or to David so that he can forward them.

The CERT/RACES event scheduled for May 1 at the Fair Lawn Recycling Center probably will be cancelled. Ed WX2R asked if and when Hepatitis B vaccinations will be offered. David will follow up.

David reminded everyone to complete the insurance forms and forward to Wendy Alvarez.

David wants FL-ARES to participate in FLARC's Field Day. Brian noted that points are awarded if ARES participants are listed on a radiogram sent via the National Traffic System during Field Day.

A staff member of the FLARC Community Center informed us that the Community Center staff must be notified in advance of meetings that are to be held at the Community Center.

The meeting was closed at 7:30 PM.

Respectfully Submitted, Karl Frank W2KBF, FL-RACES secretary

Post Meeting Note: On the BC-RACES Net, Dennis KB2TLG announced that Bergen County RACES will hold a meeting for the general membership at 7 PM on Friday, May 31 at the Training Center in Mahwah.

Tech Talk

Randy WU2S

There is a Lot to See

Continuing our series about audio and video producers who mentor the ham radio community, we look at the extensive list of videos by Dave Casler, KEØOG. His YouTube channel holds over 250 episodes ranging in length from 3 minutes to over 45 minutes. Most of the segments run about 15 to 25 minutes.

Producing a recurring audio podcast and sustaining it over time is a lot of hard work. Dave's high-quality video installments are an order of magnitude more work than audio alone. These videos really show Dave's dedication to his radio and video hobbies and to his audience.

Dave's playlist for his Technician class license exam preparation includes 37 episodes ranging in length from 3 minutes to 10 minutes. Most are about 10 minutes long. He points out that the ARRL Ham Radio License Manual, (4th edition) is a mandatory adjunct to this course. This is the current edition as of 2019. The videos are available for free on YouTube or you can purchase them on a USB thumb drive for \$29.99 postpaid anywhere in the USA at www.dcasler.com/techvids/.

The General class video playlist is comprised of 37 installments. Dave advises us that the ARRL General Class License Manual for Ham Radio, (8th edition) is needed for this course. He notes that Lew French, KCØUER, helped with the video production duties. The segments in this series range from 4 minutes to 45 minutes, with most in the area of 15 to 20 minutes long. Not surprising given that more technical material is covered in this exam. The General videos should be available on thumb drive late this year (2019).

To reach the pinnacle of amateur radio, consider viewing Dave's Amateur Extra class videos. There are 46 segments in this playlist. The installments supplement the ARRL Extra Class License Manual (11th edition). The segments in this series range from 3 minutes to 42 minutes, with most in the area of 20 to 25 minutes long. The technical material in the Extra exam definitely needs more time to explain. The Amateur Extra thumb drives are available for \$49.99 at <http://dcasler.com/aevids-on-stick/>.

Dave wants you to know that he retains the copyright to all this material, but you may feel free to use the videos during training classes, but don't make copies or distribute his videos.

Aside from his excellent license instruction courses, Dave produces a growing playlist called Ask Dave. Over the last four years, Dave made 137 segments. That rate of production - about one new episode every 10 days - is amazing! He has a very active community who comment and ask questions in every installment. Dave is very responsive to his audience.

The Ask Dave playlist covers a wide range of topics. The list starts with an overview of antenna analyzers and what you can do with them. He uses the MFJ-259B analyzer to demonstrate the concepts of determining coax loss, measuring the distance to a coax fault, calculating the velocity factor of a coax cable, and tuning a 6-meter wire antenna. Because most hams want to know as much as they can about antennas, Dave produced about 50 segments which cover many antenna types, analyzers, modeling and tuners. He carefully demystifies the meaning of SWR.

Given that hams have a reputation from frugality, Dave talks about the costs of our hobby and how-to setup a home station properly. He offers advice on building radio kits and assembling other useful gear.

There is a good reason Dave's YouTube channel has over 50,000 subscribers. He is pleasant, informative, and available to address the questions most hams want answered. Give his channel a look and you may become hooked too.

73,
Randy WU2S

Ham Lite by Brian KD2KLN



The Difference Of DMR With “Code Plugs” Included

On Saturday, March 30th, in Cairo, NY, (pronounced KAY-RO), about 50 Hams gathered at the Greene County Emergency Services building to really dig into DMR, Digital Mobile Radio. Here in the Eastern New York section of the Hudson division, four well experienced Elmers -- N2LEN, KB2WAU, N1JTA, and WB2WGH -- spent the day with us to impart the joy and intricacies of this binary babble in amateur radio.

In the morning, it was all about the basics: the history of its creation—Siemens and Airbus just trying to communicate across large spaces; this thing called C-bridges and how they're different from the Brandmeister agglomerations; the power of the Repeater operators, and why scanning on DMR basically isn't possible as it is on analog. In the second half, they covered the hierarchy of input for the infamous “Codeplugs” along with a hands-on practicum of entry via your personal computer. All I might add for gratis!

As it turns out, it's not so easy to use Codeplugs from others because of firmware differences amongst the different and even same models.

The Difference Of DMR With “Code Plugs” Included, cont.

What a lesson it was for me. I've often taken a radio en route to LaGuardia or Kennedy with all of the DMR repeaters stored for Manhattan, the Bronx, Queens, and Brooklyn with little heard. How was I to know there are Static—streams that are on all the time, and Dynamic-Talkgroups only accessed when you hit your Push to Talk button, and it's all decided upon by the Repeater administrators.

If you missed it, not to worry, this was just Year 1, they're planning already for Year 2 (or maybe FLARC can get them to come down here!?)

DE Lee KD2DRS



L to R: Joe K1JT, Ed WX2R, Brad KM2C and Van W2DLT. Brad presented Joe Taylor with a token of appreciation from FLARC for his great March 15 presentation.

April 5, 2019 Business Meeting

President Brad KM2C called the meeting to order at 7:45 p.m. The members rose and recited the Pledge of Allegiance.

Secretary Randy WU2S called the roll of officers and trustees and all except Trustee Don N2PRT were present. The meeting had a quorum to conduct club business.

President Brad KM2C asked if there were any visitors or new members present. Two visitors were present. Anthony (no callsign) introduced himself. Bob WA2ISE said that he had just joined FLARC tonight.

Secretary Randy WU2S announced that the minutes from the March meeting were sent to all members of record and published in the club's newsletter, The Resonator, which is on the club's website at <http://newsletters.FairLawnARC.org> . He asked the members present if there were any corrections or amendments needed. There were none so Skip KD2BRV moved to accept the minutes as published and Gene WO2W seconded the motion. The motion passed by acclamation.

Treasurer AL WA2OWL read this month's Treasurer's Report. Al remarked that even with the purchase of the new radios and accessories we still have a healthy treasury. He said that we will purchase several new laptop computers. He announced that we have 133 paid members as of today and he expects that we will likely see an increase back to around 150 by the year's end. Judith KC2LTM moved to accept the report as read and Gene WO2W seconded the motion. The motion passed by acclamation.

President Brad KM2C asked if there was any old business to discuss and there was none.

President Brad KM2C called upon Secretary Randy WU2S to report for the Tech Committee. Randy reminded all that the next Introduction to Mesh Networking class will be on Thursday, April 11 at 7:00 pm. The class will be conducted via video conference and a sign-up is required. Sign-up at <http://bit.ly/MESH-Class>

April 5, 2019 Business Meeting

Randy then said that the two new Flex 6400 radios have arrived and asked President Brad KM2C to supply the details. Brad reported that one radio is mostly setup and almost completely tested. Our plan is to have one Flex 6400 at operating position #1 and another at operating position #4. The Kenwood and Icom 746 radios that are currently in those positions will be relocated to storage and will remain available for use at events outside of the club. This gives us backup radios and reduces the need to tear down and reassemble operating positions #1 and #4 anytime we hold an outside event.

Ed WX2R reported for the Publicity Committee. The group met on March 26. Ed offered kudos to Thom W2NZ for producing a recent short video to be used prior to our guest speaker presentations.

Ed WX2R announced that World Amateur Radio Day is on Thursday April 18. This is an event sponsored by the International Amateur Radio Union (IARU). More information is available on their website at <http://www.iaru.org/world-amateur-radio-day.html>

Most of the activity will be outside of the USA and FLARC is the only club in North America that is committed to participate in the event. We will hold an Open House on Thursday, April 18, 2019 from 2PM-9PM EDT.

Ed reminds us that the guest speaker schedule includes:

April 19 - John Hale KD2LPM, who was a recent Hudson Division Amateur of the Year. His topic is about recruiting young people in a Queens high school and is titled "The Garden School ARC and Developing Young Hams." John is bringing two faculty members who can describe the program in detail.

The May and June guest speakers are not scheduled yet.

July 19 – Our guest speaker will be Ron Bosco WB2GAI, a well-known CW operator, who will speak on his on-air activities in Crete.

August 16 – Vintage Night at the FLARC clubhouse. Members will discuss and demonstrate classic rigs from the past.

April 5, 2019 Business Meeting

September 20 – Tim Duffy K3LR will talk to us about his “superstation” in Pennsylvania. Tim is a well-known radiosport tester, the founder and chairman of Contest University (CTU) and the Chief Operating Officer of DX Engineering which sells a wide range of amateur radio equipment and accessories.

Ed WX2R said that he may have found a suitable candidate for a “sister club” to FLARC. The candidate is the Four Lakes Amateur Radio Club (also FLARC) of Madison, WI. Ed asked for permission to contact them and see if they are interested in forming a relationship with us. Steve W12W moved to direct Ed to make the contact and Dave W2AAM seconded the motion. The motion passed by acclamation.

Ed WX2R told us that our Resonator newsletter recently received some complimentary notice from the podcast *Linux in the Ham Shack* and from the New Jersey Science Teachers Association. The Great Falls Earth Day event is confirmed for Monday, April 29.

Jim W2JC reported that the website is up-to-date and operating well. He said that in March we had 34 followers of our blog. The FLARC blog (<http://blog.FairLawnARC.org>) had 535 views from the USA. In addition, 78 originated in Hong Kong, 5 in the Czech Republic, 4 in Italy and several others from places in Europe.

Jim W2JC said that in his role as club QSL manager, he asks all club radio operators to log on the log sheets provided all contacts made at every operating position. We currently have 58 confirmed countries in our quest to obtain a DX Century Club (DXCC) award for 100 confirmed foreign countries. Fred W2AAB thinks that we can achieve this goal by year's end with the new antennas, new radios and increasing interest and opportunities to operate at the club. The list of needed countries is at position #4. Gene WO2W suggested that we make copies of this list for positions #1 and #2 also.

Thom W2NZ reported that our YouTube channel is attracting new subscribers, with 8 joining in the last month giving us a total of 133 subscribers. The channel received 433 views in March comprising 2,800 minutes used.

April 5, 2019 Business Meeting

President Brad KM2C said that it will take a few weeks to get the new radios fully tested and running correctly. He will do a short familiarization session after today's business meeting. He plans to conduct a more formal training session soon, probably on a Thursday evening. Brad told members that FLARC has 5 to 10 members who are already familiar with operating a Flex radio, so if you want to learn how to do it, or need help learning a new feature, please ask for assistance. The radios are not difficult to operate.

President Brad KM2C asked for a report on our Monday night Near & Far net. Brian KD2KLN was not present to respond so Ed WX2R said that net participation continues to be strong with an average number of check-ins in the 14 to 17 range, with a recent maximum of about 22. Vice President Van W2DLT noted that Echolink is a good way to participate in the nets and that he uses it to check-in from his home in Pennsylvania. Gene WO2W reminded members that we need volunteers to sign up for net control duties. Secretary Randy WU2S said that net control volunteers should sign-up on the whiteboard in the club's work room or email Brian KD2KLN.

President Brad KM2C announced that we need to start planning for Field Day 2019. Brad said that we will set up as a 4A class entry with an arrangement like last year. Vice President Van W2DLT contacted many members recently to gather their ideas for this year's event. Van said that John W2JLH will be the third Field Day chair along with Brad and himself. Van will assist John in organizing the various tasks and enlisting volunteers to take responsibility for specific jobs. Van asked all members to email him or John to volunteer for the event. He will hold a full planning meeting soon.

Judith KC2LTM asked if anyone had planned to get the Ridgewood inflatable emergency shelter. Gene WO2W responded that he took care of it and we have a commitment to use it.

Vice President Van W2DLT said that the **Get on the Air** (GOTA) station is an important part of the Field Day experience. He said that Brian KD2KLN, assisted by Karl W2KBF, will manage this activity. He said that Karl will provide an antenna building session as a part of this project.

April 5, 2019 Business Meeting

Vice President Van W2DLT commented that the Garretson Forge event on Saturday, May 4 will have very limited parking. We do not want to use much space so that visitors to the event may be accommodated. There is limited street parking on the nearby residential roads. Van suggested that we might run a shuttle service between the Community Center and the Forge. He is looking for volunteers to provide transport service. Gene WO2W responded that there may be parking available at the Van Riper Ellis Christian School parking lot on the corner of Morlot and River Road. Van said that he would ask the school's administrators for permission to park there.

President Brad KM2C noted that our Earth Day event at Paterson Great Falls is on Monday, April 29. He said that he may not be available and consequently his radio trailer would not be there to support our activities.

Karl W2KBF announced that Gordon W2TTT is in the Valley Hospital following some surgery. Gordon is doing well and is talking with friends via an HT and the W2AKR repeater on 146.79 MHz.

Karl W2KBF reminded members that our joint Portable Day event conducted with BARA is in Memorial Park on Saturday May 11. Karl will hold a transmitter fox hunting session to introduce the concept to those who may have not tried this kind of radiosport yet. Karl said the fox hunt will only cover short distances on foot.

Karl W2KBF demonstrated a clever and inexpensive tape measure yagi antenna which he built from commonly available parts. He said that this directional antenna is good for fox hunting and other purposes. Karl proposed to lead a group antenna building effort if enough people indicated their interest and were willing to cover the modest cost of the necessary parts. Please contact Karl directly if you want to build this antenna. The design for this antenna will be published in the Resonator.

Secretary Randy WU2S described an outreach opportunity to introduce ham radio to a group in Elizabeth, NJ. This idea is to set up several stations in an arrangement like what we do at the Great Falls event or for Field Day.

April 5, 2019 Business Meeting

We want to demonstrate a variety of ham radio activities such as learning Morse code, making HF long distance contacts, using VHF and UHF for local communications and mesh networking for high-speed data transport. The audience for this event would be children from ages 5 to 12 and their parents, and adults from the local communities who are interested in emergency communications.

Our venue is probably going to be the grounds of the Union County Office of Cultural and Heritage Affairs in Elizabeth. The site has ample open space and some tall trees to hold temporary wire antennas. The plan is to conduct the event on a Saturday in late July, August or early September.

Randy will organize this effort. Please contact Randy directly via email to Randolph@wu2s.com to indicate your willingness to help make this event happen. Suggested dates are July 20, July 27, August 3, August 10, August 17 or August 24.

Gene WO2W proposed an amendment to the FLARC bylaws which would change our election procedures. He proposed requiring the annual Nominating Committee to begin its work in September, announce the proposed slate of candidates in October, open additional nominations from the general membership in November and conduct the voting in December.

The purpose of the proposal is to allow the members more time to organize additional candidates for club offices. President Brad KM2C said that the FLARC Council would consider the proposal and decide how to present this amendment. Brad noted that the amendment if accepted would not affect this year's nominations and election, as it would have to be approved by the membership at the December annual meeting.



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Ally ALØY announced that Northern New Jersey ARES is conducting an operating event call the 5-Watt Challenge on Saturday April 13. The operating hours are noon to midnight. The idea is to test our ability to communicate without repeaters and commercial power at 5 watts. Extra points are awarded for contacts with NNJ ARES officials. For more information see the NNJ ARS website at <http://nnj.arrrl.org/5wc>

Fred W2AAB asked about interest in participating in local Maker Faires to promote ham radio. Steve WI2W said that he attended an event in Queens where the idea of Maker Faires started. Steve thought that there wasn't a good fit with ham radio. President Brad KM2C said that if someone wants to propose and lead an effort to promote ham radio at a Faire, then send in a proposal for the Council to consider.

Information about the program can be found at <https://makerfaire.com/new-york/>

Having no further business, President Brad KM2C asked for a motion to adjourn. Judith KC2LTM so moved and Tony N2SIQ seconded the motion. The members present voted in favor and the meeting was adjourned at 8:42 p.m.

Respectfully submitted,
Randy WU2S, Secretary

At Deadline

We will need operators for our two upcoming special event stations on April 29 and May 4. Please see Van W2DLT and tell him you'd love to help!!

The annual ARRL NNJ 5 Watt Challenge has gotten legs at deadline. We will probably open the club to participate in this VHF contest on Saturday, April 13 from noon-closing. Watch your emails this week for confirmation, details and participation.

Dave KD2MOB made his first SSB contact on April 7. Cool beans, Dave. Congrats!!

Randy WU2S reported 14 participants in his first Mesh networking class on March 14. Next class is Thursday, April 11th.

Finally, at 9,500 words and 51 pages, this is the largest *Resonator* yet! Thanks to everyone!!!

The FLEX's Are In!!

As we go to press, the new SDR radios arrived at the club on April 5th. Do they work? You bet. Fred W2AAB worked The Gambia, C5DL, on 40 CW getting a 599 using 100 watts and a dipole!

New radios... new antennas. It's safe to say that FLARC is THE state of the art club in New Jersey! Thanks to you and your financial support, the dream became a plan and now a reality.

There is still time to make a contribution and be recognized by the club. Send your donation to Al WA2OWL and be counted. More than one in four members made a voluntary contribution. Thanks!!

First Signs Of Spring At Memorial Park

Like the swallows returning to Capistrano, the arrival of the Porta-Potty at Memorial Park announces the arrival of Spring.

Can Field Day be far behind??



Kybo The Porta-Potty.